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ABSTRACT

The seven years since the enactment of Title I of the 1965 Elementary Secondary Education Act provided a unique opportunity for social scientists, educators, and others to attempt to find answers to unanswered questions about the teaching-learning process, especially in relation to minority group children and youth and to students from low socioeconomic backgrounds. The law mandated built-in evaluation measures. The flood of new programs provided fertile grounds for doctoral dissertation research on the education of the disadvantaged. The ERIC/IRCD staff, believing that much could be learned about doctoral research itself, about children, and about educational programs, decided to attempt to provide comprehensive collections of abstracts of those areas of special interest to the Center. This document is one of several being prepared for the new series entitled ERIC/IRCD Doctoral Research Series. Each collection is organized in the following way. Documents are first grouped under main titles. Under the main headings, abstracts are presented in order of year of completion. Where a number of abstracts appear under a topic and in the same year, they are then arranged in alphabetical order by name of author. There is also a subject index, which includes several references for each abstract, an author index, and an institution index. (Author/JM)

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Number 4, October 1973

CURRICULUM AND INSTRUCTION FOR MINORITY GROUPS: AN ANNOTATED BIBLIOGRAPHY OF DOCTORAL DISSERTATIONS

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Preface

The seven years since the enactment of ESEA Title I in 1965 provided a unique opportunity for anthropologists, sociologists, psychologists, political scientists, educators, and others to attempt to find answers to unanswered questions about the teaching-learning process, especially in relation to minority group children and youth and to students from low socioeconomic backgrounds. Not only did the law provide extensive funds for compensatory and innovative programs, but it also mandated built-in evaluation measures. The flood of new programs provided fertile grounds for doctoral dissertation research on the education of the disadvantaged.

The plaintive cry of most students completing doctoral dissertations has been "all that work and where does it lead?" Bits and pieces of research throughout the country are entombed in Dissertation Abstracts International and in university libraries with only upcoming doctoral students forced to survey what has been done so that new outlines will not duplicate what has already been completed.

The ERIC/IRCD staff, believing that much could be learned about doctoral research itself, about children, and about educational programs, decided to attempt to provide comprehensive collections of abstracts in those areas of special interest to the Center. This document is one of several being prepared for a new series of publications entitled ERIC/IRCD Doctoral Research Series.

The first step taken was to do a computerized search, using the Datrix system, of the available tapes of Dissertation Abstracts International from 1965 to 1969 employing the following special descriptors: black, Puerto Rican, Mexican American, inner city, poverty, ghetto, urban, slum, rural, Negro, American Indian, and disadvantaged. The computer printouts of the resultant lists were then screened to eliminate all except those abstracts which clearly related to educational programs for the disadvantaged.

A hand search was then conducted for documents appearing in the January 1970 to June 1972 volumes to bring the collection as up to date as was possible at that time. Descriptors used for the hand search were: disadvantaged, desegregation, inner city, black, Negro, American Indian, Mexican American, Puerto Rican, (Spanish surname added later).

In all, over 700 abstracts were photocopied, sorted, and indexed. All indexing in Dissertation Abstracts International is based on titles rather than on abstracts. There are limitations resulting from the omission of other descriptors and computer or human oversight.

It is expected that each of the collections will, by providing all related abstracts in one document, be of value to many lay, professional, school, and university groups.

Dissertations may be bought in microfilm or hard copy from University Microfilms, 300 N. Zeeb Road, Ann Arbor, Michigan 48106. Order numbers have been provided for each dissertation at the end of the citation. Prices have not been indicated because of past or possible future changes. In addition, dissertations may frequently be borrowed on inter-library loan from the sponsoring universities.

Each collection is organized in the following way. Documents are first grouped under main topics. Under the main headings, abstracts are presented in order of year of completion. Where a number of abstracts appear under a topic and in the same year, they are then arranged in alphabetical order by name of author. There is also a subject index, which includes several references for each abstract, an author index, and an institution index.

In the interest of objectivity and comprehensiveness, all appropriate documents have been included even though many present conflicting views, and do not necessarily represent the Center's policy or position.

The Center would like to be informed of other appropriate dissertations in these categories since there are plans to update and supplement these collections in the future. The name of the author, the title of the dissertation, and the month and year of completion is the only information required.

Other bibliographies in this series are:

Mexican Americans: An Annotated Bibliography of Doctoral Dissertations. ED 076 714 (MF-$0.65; HC-$3.29).

School Desegregation: An Annotated Bibliography of Doctoral Diserations ED 078 098 (MF-$0.65; HC-$6.58).

Early Childhood Education for the Disadvantaged: An Annotated Bibliography of Doctoral Dissertations.

Single copies of each are available free from ERIC/IRCD, Box 40, Teachers College, Columbia University, New York, N. Y. 10027, for as long as the supply lasts.

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Social Studies

1. Wood, Frederick Harrison. A Study of Social Studies Education in the Rural, Urban, and Suburban High Schools of Missouri. University of Missouri, Columbia, 1966. 384p. Adviser: Bob G. Woods. 67-957.

Purpose: To analyze and compare social studies education in the rural, urban, and suburban high schools of Missouri to ascertain the status of (1) the present social studies course offerings, including changes in these courses over the last twenty years; (2) the changes that have occurred in the social studies curricula during the five-year period from 1960-61 through 1965-66, including the newer subject matter content being taught; (3) the pre-service and in-service training of social studies teachers; and (4) the instructional methods and media used by social studies teachers.

Four different procedures were employed to collect the data reported in this study. The first procedure consisted of obtaining data concerning social studies course offerings in Missouri from the One Hundred Sixteenth Report of the Public Schools of the State of Missouri prepared by the State Department of Education. These data were compared with similar data reported by the State Department of Education in 1945 and at subsequent five-year periods. The second procedure consisted of utilizing a questionnaire sent to 420 rural, urban, and suburban social studies teachers to obtain specific information concerning their pre-service and in-service training and the courses offered in the 164 high schools in which they taught. The third procedure consisted of making one day visitations to a stratified random sample of thirty-two high schools to observe and interview social studies teachers concerning the instructional methods and instructional media they employed in their classrooms. The fourth and final procedure consisted of analyzing 1,355 permanent records of 1965 graduating seniors to determine the social studies courses they had taken while in high school.

Findings and Conclusions:

(1) The most popular required social studies course offerings in the rural, urban, and suburban high schools of Missouri are quite similar, as are the elective courses.

(2) As a group, graduates of suburban high schools take significantly more social studies in grades nine through twelve than graduates of either rural or urban high schools.

(3) The social studies courses that have shown the greatest growth in popularity since the 1944-45 school year are, in order, World History, Psychology, American History, Citizenship, and Economics.

(4) Generally, the revision of the social studies programs in the rural, urban, and suburban high schools of Missouri occurs as additions to twelfth grade electives in social science fields other than history.

(5) Rarely do the high schools of Missouri undertake intensive curriculum development projects which entail an entire revision of their social studies programs.

(6) The newer subject matter topics that are most frequently considered in Missouri social studies courses are, in rank order, current events, communism, the United Nations, and the U.S.S.R.

(7) As a group, rural and urban teachers are older and have more teaching experience than suburban teachers.

(8) Generally, the pre-service preparation of Missouri social studies teachers in the various social science course areas is most adequate in history and least adequate in international relations and law and in geography.

(9) More urban and suburban than rural social studies teachers in Missouri attend colleges or universities for graduate or further undergraduate education beyond their pre-service training, hold memberships in social studies organizations, and travel in the various regions of the United States and the world.

(10) The in-service activities most frequently conducted by Missouri high schools are, in rank order, in-session workshops, faculty meetings concerned with the special problems of teachers, and pre-school workshops.

(11) The instructional methods most frequently used by social studies teachers in the rural, urban, and suburban high schools of Missouri are teacher-centered, i.e., question-answer recitation, teacher-led class discussion, and lecture.

2. Wulff, Kenneth Ray. A Correlated Study of Reading and Social Studies Inference and Application of Principles Tests Among Disadvantaged Rural Appalachian, Disadvantaged Urban, and Advantaged Suburban Students. Ohio University, 1969. 136p. Adviser: Dr. Milton E. Ploghoft. 70-4758.

The purpose of this study is to investigate group relationships of disadvantaged students in comparison with advantaged students pursuant to their ability to think critically. A specific purpose is to determine if differences exist among disadvantaged rural Appalachian students, disadvantaged urban students, and advantaged suburban students as measured by performance on Taba's Social Studies Inference and Application of Principles Tests. A further purpose is to determine if there is a partial correlation between reading and performance on the Taba tests, with the factor of academic ability controlled.

Three populations of sixth grade students were identified by use of the United States Census Bureau's definition of poverty index. The disadvantaged rural Appalachian students were selected from a three-county area of Appalachian Ohio. The disadvantaged urban students and the advantaged suburban students were selected from two different Ohio cities.

The Ohio Survey Test, Grade Six, 1968 Revision, Academic Ability and Reading Achievement sub-tests, was administered to the students prior to the administration of the Taba Social Studies Inference Test and Application of Principles Test.

A random sample of 100 students in each of the three groups was selected for the study. Statistical procedures of partial and multiple correlation and discriminant analysis were utilized in the investigation.

It was hypothesized that the three groups occupied the same space as measured by their group centroids on the discriminant functions. The resulting Wilk's Lambda test was not significant; therefore, the groups are not equal in terms of their centroids. All variables tested, except overcaution, in each group, were significant at the .05 level.

It was further hypothesized that the combined and separate groups' partial correlation coefficient between reading and the Taba tests, with academic ability held constant, would be 0. This hypothesis was rejected in the combined group, Group I (disadvantaged rural Appalachian), Group II (disadvantaged urban), and in all variables, except overcaution, in Group III (advantaged suburban) on the Taba Social Studies Inference Test. The hypothesis was rejected for the combined group and for all groups separately on the Taba Application of Principles Test.

The following conclusions were drawn from the study:

(1) There is a significant correlation between the Ohio Survey Tests, Academic Ability and Reading Achievement subtests and the Taba Application of Principles Test - generalization

(2) There is a significant correlation between reading achievement and performance on the Taba Social Studies Inference Test and Application of Principles Test; (3) Group I (disadvantaged rural Appalachian students) and Group III (advantaged suburban students) obtained close means and standard deviations in all nine variables. Group II (disadvantaged urban students) appeared to be entirely different in respect to the nine variables; (4) the following general characteristics were exhibited by the groups: Group I (disadvantaged rural Appalachian students) A strong positive correlation exists between academic ability, reading achievement, Taba Application of Principles Test - generalization, and discrimination. Group II (disadvantaged urban students) Academic ability, reading achievement, generalization, and discrimination are correlated. Group III (advantaged suburban students) These students have the following characteristics: academic ability, reading achievement, generalization, and discrimination. These students exhibit higher discrimination scores than Group II (disadvantaged urban students).

[Pages 99-130 "Ohio Survey Tests" not microfilmed at request of author. Available for consultation at Ohio University Library].

3. Harris, J. Willard. Evaluation of Achievement and Opinions of Inner City Eighth Graders on Questions of Law. Northwestern University, 1970. 61p. 71-1858.

This study sought to determine whether materials developed for eighth graders by the Law in American Society project would, during the 1968-69 school year, significantly increase knowledge of the law and induce positive changes in opinion toward the law on the part of inner-city eighth graders.

The design was a pretest, posttest situation with randomly selected classes of experimental and control group subjects. The data were analyzed by analysis of covariance; the .05 level of confidence was the criterion by which a hypothesis could be accepted. All teachers were fully certificated; the experimental group teachers had completed a six week inservice training program on law and on the teaching of materials on law. The control group spent 100 forty-five minute class periods on regular U.S. history materials; the experimental group spent 60 class periods on regular materials and 40 periods on the experimental materials.

Analysis of data showed that use of the eighth grade Law in American Society materials increased achievement significantly, but did not affect opinions to a significant extent. When the test scores were broken down into four subscales (law, law enforcement, the political system, and the judicial system), the experimental group achieved significantly more in each case; in no instance, however, was there a significant difference in opinions held toward these topics. There were no significant differences in ways males and females performed on either achievement or opinion measures.

Analysis of the opinion items showed that a number of items elicited either strongly negative or strongly positive responses. The subjects, without regard for sex or group differences, did not believe that letters to Congressment influenced legislation, or that Congressmen listen to the will of the people if the desire of the people conflicts with the advice of experts. They do believe that laws are passed for secret purposes, that policemen are not as honest as the average citizen, and that policeman are more interested in enforcement than in protection.

At the same time, the subjects believed that laws are meant to keep people safe, that most laws are fair, that unfair laws can be changed, that all laws should be obeyed, that a man caught breaking a law should get a fair trial, that you should not resist arrest for something you did not do, and that it is not right to break the law even if you do not get caught.

4. Kaye, Mildred. Patterns of Verbal Interaction in Classes for Disadvantaged High School Students. Columbia University, 1970. 174p. Adviser: Professor Arno A. Bellack. 71-1105.

It was the purpose of this study to examine the teaching process in high school classes for disadvantaged students by examining the linguistic behavior of teachers and students in social study classrooms. Analysis of verbal behavior was undertaken because there is an undeniable emphasis on verbal behavior in the high school learning situation. The study was designed as a descriptive model of what actually occurs in classrooms.

The subjects for this study were five eleventh-year social studies classes and their teachers selected from among classes participating in the College Discovery and Development Program sponsored by the City University and New York City Board of Education. All ninety-one students, although from a highly select group, were from socio-economically deprived environments with records of academic achievement that, in the opinions of the College Discovery and Development Program staff, failed to reflect their real learning potential. The subject matter for all sessions followed the prescribed course of study. A total of five tape recorded observations were made in each of the five participating classes yielding a total of twenty-five classroom sessions for which data were available.

Verbal interaction in classes for disadvantaged high school students was studied in terms of verbal "games." Analysis was made of teacher-pupil activity, pedagogical roles of teachers and pupils (structuring, soliciting, responding, and reacting), substantive and instructional meanings, substantive-logical and instructional-logical meanings, and basic teaching cycles.

It is clear that a "game" with well defined rules, regulations and goals was played in the observed classes. It is equally clear, on the basis of the evidence collected, that aside from structural and administrative reorganizations such as reducing class size, providing opportunities for student counseling, making tutorial assistance available, and occasional trips to cultural centers in and around the city, little that is new and/or different happened in the day-to-day teaching-learning situation in the observed classes. The teachers made the most moves and did the most talking. The main teacher pedagogical roles were soliciting and structuring. Responding was the pupils' primary responsibility. Reacting moves were shared almost equally by teachers and pupils. The primary emphasis was on substantive material commonly taught in the eleventh-grade. The greatest percentage of all class sessions was devoted to teacher soliciting designed to elicit recall of factual information. The basic pedagogical pattern of discourse consisted of a teacher solicitation, followed by a pupil response, followed by pupil and/or teacher reaction(s). Occasionally, this was preceded by a teacher structuring move. Verbal interaction patterns were remarkably similar in all five classes. These same patterns have been documented in the literature from the time Stevens observed social studies classes in 1912 to Bellack's examination of verbal interaction patterns in social studies classes in 1966.

Now that identification and description of relevant verbal behavior has been made, identification of and experimentation with curricula experiences specifically designed for the disadvantaged high school student becomes possible.

5. Park, Joe Charles. Chicago Suburban and Inner-City Student Opinion and Achievement Related to Law in American Society. Northwestern University, 1970. 125p. 71-1936.

Suburban and inner-city Chicago eighth and eleventh grade students were tested for opinion and achievement using the 1967-1968 test materials developed by Project Law in American Society. Five basic topics were investigated: the relationship between a student's opinion and achievement, the relationship between a student's grade level and his opinion, and achievement and opinion of students by location; knowledge of Negro history; and to determine student opinion about specific areas of laws in American society, an analysis was made of individual questions from the Chicago Opinion Panel.

Significant but low correlations were found between student opinion and achievement. Eleventh grade inner-city student opinions were more undecided and desirable than those of inner-city eighth grade students. No significant differences were found between suburban eighth and eleventh grade student opinions. Achievement and opinion scores of suburban students were significantly higher than those of inner city students. Negro history scores, although low, were significantly higher for suburban students.

An analysis of specific opinion questions suggested inner-city students were more likely to question police honesty and a citizen's obligation to obey a law with which he disagreed.

Eighth grade suburban students were significantly more likely to poose laws against self incrimination, support the motives of judges, obey the laws with which they disagreed, and to support the right of criminals to have a lawyer. Eleventh grade suburban students were significantly more favorable toward police search under certain conditions, and to support equal opportunity in the working market. Although significant differences were not reflected in total suburban and inner-city responses, suburban eleventh graders were more inclined to support the right of demonstrations than were inner-city eleventh graders.

6. Steinbrink, John Edwards. The Effectiveness of Advance Organizers for Teaching Geography to Disadvantaged Rural Black Elementary Students. University of Georgia, 1970. 277p. Adviser: M. J. Rice. 71-13,133.

The study was conducted under the auspices of the Geography Curriculum Project, University of Georgia and was concerned with determining whether or not advance organizers facilitate increased cognitive achievement among disadvantaged black elementary students. The treatment materials consisted of a geography unit entitled Comparative Rural Landscapes which was developed by the writer. Effectiveness was evaluated by comparing the adjusted posttest achievement scores of an experimental treatment group who was taught the unit with advance organizers T1) and a control treatment group who was taught the unit without advance organizers (T2).

The hypothesis concerning the main treatment effect was that the mean adjusted achievement scores of the T1 group did not differ significantly from the mean achievement scores of the T2 group. Two additional hypotheses concerning main teacher effects and teachers-by-treatments interaction were examined. The hypotheses were analyzed with a univariate analysis of multiple covariance with two covariates. Adjusted posttest achievement served as the criterion variable. Pretest scores and reading achievement scores were the covariates.

The study involved three teachers and six classes. Each of the three treatment teachers taught a T1 and a T2 group. Five of the six treatment classes were fifth grades; the other was a sixth grade. All treatment subjects (T1=77; T2=79) were black and the three treatment teachers were black also. The instructional period lasted six weeks.

The study was carried out in Hancock County, Georgia. During the 1969-70 school year approximately 75 percent of the student population came from families with income of less than 3,000 a year. The school district was classified as disadvantaged because it receives supplementary funds under the Elementary and Secondary Education Act of 1965.

Analysis of adjusted posttest achievement scores indicated that group T1 scored significantly higher than did group T2. The differences among the treatment classes who were taught by different teachers were not significant. The interaction of teachers-by-treatments was not significant.

The main treatment hypothesis of no difference in adjusted posttest achievement between the T1 and T2 groups was rejected at the .01 level of significance. The conclusion was that advance organizers could have implications for teachers and textbook writers working with disadvantaged students.

7. Dennis, James, Sr. The Relevancy of the Social Studies Curriculum to the Needs of the Students in Inner-City Schools of Chattanooga, Tennessee. George Peabody College for Teachers, 1971. 265p. Adviser: Professor Jack Allen. 71-26,203.

Purpose: To survey the relevance of the social studies curriculum to the needs of the students of selected (emphasis on disadvantaged children) schools in Chattanooga, Tennessee by examining (1) course relevance to student characteristics and needs (determined from both student response to questionnaire items and educational research), (2) teacher perceptions of student needs and characteristics, (3) course offerings and approximate enrollment in specific courses, (4) course content, (5) teacher methods and strategies in the classroom, and (6) teacher preparation patterns. Also to analyze the typical social studies teacher training program available to these teachers for relevance to their present situation; by looking at the backgrounds, training, understandings, and practices of the trainers of social studies teachers in some selected institutions of higher education, where a majority of the social studies teachers received their training.

Two basic procedures were employed. First, an extensive review of literature and related research about social disadvantage and social studies curricula was conducted. Second, based on this review, questionnaires were devised. One was administered to 96 students in grades 7 and 8, a second was administered to 144 students in grades 9 through 12, a third to 35 social studies teachers of these students and a fourth to 25 college professors. The children and the social studies teachers were given their questionnaires with directions about how to answer. The college personnel were interviewed.

Findings and Conclusions:

1. Students exhibited some characteristics of disadvantaged children in terms of attitudes toward teachers, classroom activities preferred, certain aspects of citizen self-concept, and knowledge of government at the seventh and eighth grade levels.

2. Both teachers and students perceived current problems, current history and skills for living as the most relevant classroom material. Both saw teacher subject matter mastery as an important teacher characteristic and both perceived joint teacher-student planning as not important.

3. Teachers saw the learning problems of students mainly in terms of the students and their environment.

4. Course offerings, class size and enrollment percentages in various classes indicated much the same kind of traditional subject matter emphasis and class structure that has been characteristic of the social studies curriculum for some time.

5. A wide range of relevant topic areas such as juvenile delinquency, local problems, minority contributions and intercultural relations were discussed in various courses but coverage was not uniform nor did teachers consider these topics significant. Citizenship skills were not broadly emphasized. Less controversial issues, such as communism and voting rights, were freely discussed while more controversial issues, such as race or governmental corruption, were not.

6. In general, teacher attitudes toward students were positive, their attitudes toward the teaching profession were even more positive.

7. In many instances the pre-service education of teachers, was not concentrated on the subject areas or teaching skills relevant to their present work. Furthermore, teachers were often not assigned to take advantage of skills they had nor did in-service programs focus specifically on needed skills.

8. The social background of the trainers of the social studies teachers was quite different from that of many inner-city children, but the trainers had had, through teaching and other experiences, considerable contact with the problem of educating disadvantaged youth.

9. The training of the trainers of teachers, as a group, had not included those subject areas or teaching skills appropriate to their tasks.

10. Most of the trainers of teachers understood the kinds of innovations needed to remediate deficiencies regarding the education of teachers for disadvantaged situations.

11. There were no clearly structured programs to implement the education of social studies teachers for disadvantaged situations, but some change in this direction was evident.

Black Studies
History and Political Science

8. Baker, Eugene Harold. A Comparative Study of Textbook and Simulation Approaches in Teaching Junior High School American History. Northwestern University, 1966. 149p. Adviser: John R. Lee. 67-4204.

The main purpose of this study was to investigate, by experimental means, if differences in the method of teaching junior high school American History would increase to a statistically significant level the immediate learning and retention of the material presented.

A secondary purpose was to find out if the method used by the teacher had any effect on the attitudes of the children during the teaching of the unit.

Two teaching methods were employed. The first method, a pre-Civil War simulation, was a functioning reproduction of the major characteristics and problems of the social, economic, and political system in our country between 1840 and 1860. It presented the historical problems of our country in the structure of international politics in a simplified form. The second method, the traditional method of teaching, was described as the "read the textbook and discuss" method.

To secure data relating to this study, one hundred and thirty-one eighth grade students in Lincolnwood, Illinois, were separated by randomization into four groups, two of which were taught a three-week unit in American History using the simulation method and two of which were taught the same unit by the traditional method.

A pre-test of fifty-five items to determine any previous knowledge of pre-Civil War history was given the week before the unit was begun. This test was constructed of items similar to test items in commercial textbooks and test items from the author's personal files. It was field tested, revised, and then submitted to an item analysis using analysis of variance to determine the coefficient of item reliability and the internal item difficulty.

This same fifty-five-item test was given as a post-test immediately after the unit was taught to measure immediate learning. It was given again six weeks later as a retention test. All four groups, again assigned on a random basis, were taught by the writer, who also administered the four tests and corrected them.

Testing the hypotheses required an analysis of variance computer program using unequal groups. This analysis with a two by two design formed the main statistical structure of the study.

Major Findings: There were significant differences in the amount of immediate learning of pre-Civil War American history by the children in the two groups taught the historical concepts by the simulation method. These differences were statistically significant at the one per cent level of confidence.

There were no significant differences in the amount of retentive learning of pre-Civil War history by children in the two groups taught the historical concepts by the two methods, traditional and simulation. There was no statistically significant difference at the one per cent level of confidence; however, a statistically significant difference did exist at the five per cent of confidence.

There was a statistically positive attitudinal change in the students in the simulation classes favoring a more centralized and efficient policy making procedure. These children seemed to have greater appreciation for the complexity of our country's pre-Civil War problems and the decision relating to those historical concepts.

9. Guenther, John Edward. Negro History in the Public High Schools of Missouri. University of Missouri - Columbia, 1970. 255p. Adviser: Bob G. Woods. 71-3335.

Purpose: The purpose of this study was to determine the status of the making of Negro history in the public high schools of Missouri. This search attempted to identify: (1) how Negro history is organized for instruction; (2) the objectives of the program; (3) the instructional materials and methods used by teachers; (4) the in-service education provided teachers; and (5) the evaluative procedures used.

Method of Research: Two different procedures were used to collect the data reported in the study. One procedure consisted of a questionnaire mailed to a random sample of 250 rural, suburban, outstate urban, and metropolitan urban American history teachers. The second procedure consisted of interviewing fifteen social studies department chairmen in schools certified through the teacher questionnaire as having "exemplary" Negro history programs.

Summary and Conclusions: In view of the findings of this study, the following conclusions may be drawn:

(1) Secondary school teachers of American history in general believe that Negro history should be included in the curriculum of secondary schools, that is beneficial to students of all ethnic and racial groups, and that greater attention should be devoted to the Negro in the existing history courses rather than to establish separate Negro history courses.

(2) Teachers in urban communities and settings in close proximity to racial problems tend to be more concerned with Negro history than teachers in rural communities and areas removed from such problems.

(3) According to the beliefs of American history teachers, the most important objective of the teaching of Negro history in secondary schools is to awaken interest and concern regarding human rights accorded all 'races and creeds."

(4) History teachers are poorly prepared to teach Negro history from the standpoint of their knowledge of the subject. There is a need for both in-service and in-service education programs that focus on the content of the subject.

(5) American history textbooks for secondary schools are inadequate in the treatment of Negro history, and the available supplementary materials are generally of poor quality.

(6) According to the beliefs of American history teachers, the teaching of Negro history does not require unique methodology. In addition to the utilization of traditional methods, the use of biographical studies, special projects, and bulletin board displays are of value.

(7) The major problems encountered in establishing Negro history programs are the lack of adequately trained teachers, the availability of high quality materials, and the lack of adequate time for planning.

(8) The establishment of Negro history programs is generally accepted without adverse criticism on the part of the community or the students.

10. Lang, Harold Wendell. Relationship of the Self-Concept of Fifth-Grade Negro Students with Their Knowledge of Negro Leaders and Events. North Texas State University, 1970. 114p. 71-8680.

This investigation was concerned with determing the relationship of the self-concept of fifth-grade Negro students with their knowledge of Negro leaders and events. It was also concerned with determining the relationships (1) of knowledge of Negro leaders and events and reading achievement and (2) of the self-concept and reading achievement.

This study was limited to 105 fifth-grade Negro students selected from three predominantly Negro schools in upper-, middle-, and low-income communities of a large Texas city. The selection of subjects from these income levels was based on family income data and number of students receiving free lunches. Subjects were within the normal I.Q. range of 90-110.

The subjects were administered the Piers-Harris Children's Self-Concept Scale, from which their self-concepts were inferred. A specially devised Knowledge of Negro Leaders and Events Test and the reading tests of the Comprehensive Tests of Basic Skills, Level II, were administered to ascertain their knowledge of Negro leaders and events and their reading achievement. A panel of judges was used to determine the validity of the specially devised Knowledge of Negro Leaders and Events Test.

The purposes of this study were achieved by computing a correlation between fifth-grade upper, middle, and low income level subjects' (1) self-concept and knowledge of Negro leaders and events scores, (2) self-concept and reading achievement scores, and (3) knowledge of Negro leaders and events and reading achievement scores.

Low- and middle-income-level subjects had a significant correlation between self-concept and knowledge of Negro leaders and events with probability levels of .01 and .04 respectively. The combined subjects had a significant positive correlation at greater than .01 level of significance for the self-concept and knowledge of Negro leaders and events. Significant positive correlations were also found for combined subjects with their self-concepts and reading achievement (P= .008), and knowledge of Negro leaders and events and reading achievement (P= .0005). Middle- and upper-income subjects had a significant positive correlation for knowledge of Negro leaders and events and reading achievement at less than .05 and .001 level of significance, respectively.

Differences between means were considered in the areas of self-concept, reading achievement, and knowledge of Negro leaders and events, by computing an analysis of variance.

A significant difference was found between the mean scores of the Knowledge of Negro Leaders and Events Test for upper, middle, and low income level subjects. No significant differences were found between the mean scores of any variables for high or low self-concept subjects.

On the basis of the treatment, limitations, and population studies, the following are the findings and conclusions:

1. There was a significant difference in the mean scores of knowledge of Negro leaders and events for upper, middle and low income level subjects.
2. There was a significant positive correlation between the self-concept and knowledge of Negro leaders and events of subjects and between reading achievement and knowledge of Negro leaders and events.
3. Upper- and middle-income-level subjects did not have a significant positive correlation for self-concept and reading achievement.
4. The high self-concept of students and the significant relationship between the self-concept and knowledge of Negro leaders and events may have been due to the current stress of programs in these areas.

11. Littleford, Michael S. An Anthropological Study of the Internal Structure of an Experimental "Problems of Democracy" Class in an All Black High School. The University of Florida, 1970. 221p. Adviser: Hal G. Lewis. 71-17,185.

This study reports what happened, under experimental conditions, to themembers of a problems of American democracy class. The focus of the inquiry was the internal structure of the classroom group as it developed and changed over time. The class was part of an all black high school in north central Florida and consisted of 24 twelfth-grade pupils, 2 black teachers (in succession), and white college professor. The class was in operation from September 2, 1969, to January 29, 1970.

The experimental class was concerned with a comparative study of the local black community in its past and present forms. Data were collected on this subject by the students through observation, interviewing, and recording; information about other cultural groups was provided by the instructors. The class was operated according to a set of assumptions which included the beliefs that the student should have some control over the direction of the class and that voluntary participation by the students was the only means by which class activities could be carried out successfully.

The data for this study were collected by participant observation. The class was observed daily and each pupil was interviewed three times. In addition, each of the three teachers was interviewed at least once. The data were analyzed in accordance with the theory and methodology of event analysis. This frame of reference involves tracing the interactions among individuals and between individuals and groups. Organized human groups are viewed as social systems existing in time and space and in a particular environment. A social system is seen as being made up of a number of interrelated components, which for the purpose of analysis, can be isolated and described and their relationships to one another made explicit. The events as they were recorded in the experimental class were analyzed in terms of the following interrelated variables: the nature of the relationships existing among the personnel of the class; the types of activities engaged in; the topics of concern; the amount of time between planning and completing a class project; and the external environment.

It was found that the experimental class was characterized by a high level of student autonomy and involvement. In the absence of externally imposed controls, a system of internal control grew out of the interest and involvement of the students in the subject matter of the class. Over the term, the class became increasingly self-directing in carrying out activities. The student group controlled the behavior of its members to that the teacher did not need to function in a custodial role.

Most significantly, the experimental group was able to maintain its autonomy in the face of a series of impingements from the external environment. The most severe external interferences were: (1) a school-wide student strike which resulted in the loss of 11 school days; (2) the impending desegregation of the local school system and the simultaneous phasing out of the high school of which the experimental class was a part. This meant the students would have to transfer to a new school in the middle of their senior year; (3) a change of teachers. The second black teacher did not behave in ways conducive to student control of the direction of class activities. The student group maintained its independence by rejecting this man as a teacher and incorporating him into the group as a peer. At the end of the experiment there was virtually no student-teacher relationship existing within the group. Nevertheless, because control was internal, class activities continued to be carried out.

12. Madon, Constant A. An Analysis of Curriculum Guides Recommended for Black History and Related Social Studies Programs in Selected Cities of the United States. Fordham University, 1970. 140p. Adviser: Ruth A. Korey. 71-32.

This study was undertaken to analyze curriculum guides recommended for Black history and related social studies programs in elementary school districts in cities having a population of 100,000 or more.

Findings are based on an analysis of curriculum guides in elementary social studies and Black history.

1. Twenty-four of the ninety-eight curriculum guides received contained items on Black history and related social studies. Twenty-three of these guides integrated Black history with social studies. One guide was designed for a separate experimental course in fifth grade.

2. School systems in cities of 1,000,000 or more had the highest proportion of guides. Those in cities of 100,000 - 250,000 had the lowest proportion.

3. Analysis by geographic region indicated that the highest proportion of guides containing topics related to Black history and related social studies came from school districts in the North Central region. The South had the lowest proportion.

4. The highest proportion of guides came from school districts with more than forty per cent non-white residents. Those with thirty to forty per cent non-white had the lowest proportion of guides.

5. Regarding grade placement of Black history and related social studies, it was found that the fifth grade had the highest exposure, with a total of twenty listings for the twenty-four guides. The sixth grade had the lowest exposure, with a total of three.

6. The phases tabulated for the primary grades were: (1) The Black American at Home and School; (2) Black Americans as Community Helpers; and (3) The Black American's Contribution to the Local, State, National, or World Community.

7. At the intermediate level Black history was analyzed chronologically: (1) 1492-1619; 1619-1863; (3) 1863-1896; (4) 1896-1954; and (5) 1954-1969. The phase which received the highest exposure was The Institution and the Moral Question of Slavery.

8. Seven types of materials and resources were suggested in curriculum guides. Fifteen teachers' reference books, 125 books for pupils, ten films, five filmstrips, and ten records were recommended for teaching related social studies at the primary level. Maps and globes and picture packets were not listed at this level.

9. In the intermediate grades, 207 teachers' reference books, 243 books for pupils, sixteen films, thirty-nine filmstrips, thirty-three records, two maps and globes, and four picture packets were recommended for teaching Black history.

10. Twenty-two different activities and experiences were found in curriculum guides. At the primary level activities and experiences employed most frequently were: (1) Discussing Main Ideas; (2) Listening to Music and Singing Songs; (3) Reading Pertinent Material; and (4) Viewing Films and Filmstrips. At the intermediate level, activities and experiences employed most frequently were: (1) Reading Pertinent Material; (2) Discussing Main Ideas; (3) Studying About Famous People; (4) Writing Letters, Biographies, Reports, Speeches; and (5) Viewing Films and Filmstrips.

Conclusions were:

1. Of the 130 United Stated cities with populations over 100,000, Black history and related social studies as described in curriculum guides were offered by less than twenty per cent of the school districts.

2. Quantitatively, guides used in integrated programs predominated with all but one of the twenty-four studied using this approach.

3. Of the guides studied, all contained Black history in the intermediate grades, but only one-fourth offered related social studies content at the primary level.

4. School districts in the North Central region had the highest proportion of curriculum guides in Black history and related social studies. The South had the lowest proportion.

5. School districts in cities of more than 1,000,000 population had the greatest proportion of curriculum guides in Black history and related social studies. School systems in cities of 100,000 - 250,000 population had the lowest proportion.

6. School systems with more than 40 per cent non-white had the highest proportion of guides in Black history and related social studies. School districts with 30-40 per cent non-white residents had the lowest proportion.

7. Related social studies phases in guides at the primary level were suggested in one-fourth of the guides.

8. At the intermediate level, Black history phases within the whole of United States history were unevenly stressed in curriculum guides.

9. Books for pupils were the most frequently utilized materials and resources in Black history and related social studies. Fiction comprised the largest category.

10. Throughout the grades, the activities and experiences stressed most frequently were Discussing Main Ideas, Reading Pertinent Materials, and Viewing Films and Filmstrips. Those least frequently utilized were Analyzing Current Events, Simulating Television Programs, and Celebrating Holidays.

13. Payne, Robert Glen. The Effects of Teaching the Concept Lesson, "The Underground Railroad in Michigan" to Black and White Fourth Grade Students. The University of Michigan, 1970. 256p. Adviser: Stanley E. Dimond. 71-4702.

The purpose of this study was to determine the effects of teaching the lesson, "The Underground Railroad in Michigan," to black and white fourth grade students. The lesson was identified as a concept lesson developed as an example of "integral history," Concept was defined as "an idea around which related information is gathered and organized." Integral history was defined as "history in which the role of the Black American is presented as an interwoven part of the historical incident under study."

Students from nine fourth grade classrooms composed the sample for the study. Three classes were chosen from each of the three student bodies -- all white, all-black, and integrated. Each integrated class was divided into two groups -- black students and white students. The resulting twelve groups were equated for intelligence, reading comprehension, and parent's occupational status. Within each student body, two classes were randomly selected as experimental groups, while the third became the control class.

All groups were pre-tested for:

1. Knowledge about the lesson to be taught.
2. Extent of agreement with the attitudes the lesson portrayed.

White students were administered a semantic differential with the stimulus concept "black people." Black students were administered a semantic differential with the stimulus concept "white people."

Two weeks following pre-testing, all experimental groups were taught the lesson, "The Underground Railroad in Michigan." Students within one experimental group were taught through an audio-slide approach. Students in the other experimental group were taught through an oral-reading approach. Both approaches combined facts and feelings in the presentation. Following instruction, experimental and control groups were tested on the same day. Selected students were then interviewed to determine more fully the lesson's impact.

The results from the study support the idea that increased facts are learned from teaching a concept lesson in integral history. In addition, the results emphasize that instruction in integral history can be important in building and maintaining positive attitudes for both black and white students. This importance of instruction was especially evident in segregated classes. No consistent correlation was found in this investigation between gains in knowledge about the lesson and gains in either positive attitudes or agreement with the attitudes portrayed in the lesson.

The conclusions are:

1. Teaching facts through an audio-slide approach tends to be of greater benefit to black students in learning information than teaching the same facts through an oral-reading approach.

2. When using the audio-slide approach, black students in a segregated classroom learn as much factually as black students in an integrated classroom.

3. Instruction to integral history, through an audio-slide approach, contributes to building and maintaining positive attitudes of black students toward "white people."

4. In a segregated classroom, instruction in integral history through an audio-slide approach, has a significant positive impact on the attitudes of black students toward "white people."

5. Being in an integrated classroom has no significant effect on the learning of factual information by white students.

6. Teaching facts through an oral-reading approach tends to be of greater benefit to white students in learning factual information than does the audio-slide approach.

7. Instruction in integral history, as defined and taught in this study, is important to building and maintaining positive attitudes of white students toward "black people," especially in a segregated classroom.

8. Being in an integrated classroom is important for white students in building and maintaining positive attitudes toward "black people."

9. Facts alone have little effect on positive attitude change.

Student interviews provided evidence that the feelings built into the lesson were important contributions to changes in attitude registered by both black and white students.

[Pages 218-236, "A Mystery Train Trip," not microfilmed at request of author. Available for consultation at the The University of Michigan Library.]

14. Schneiderman, Gerald M. The Relationship of Cognitive Differentiation of Types of Black History Course Content and Attitude Change of Black Seventh-Grade Students. New York University, 1970. 130p. Adviser: Professor Dan W. Dodson. 71-13,663.

This study investigated the effects of different types of course content in Black American history on race-relevant attitudes of Black seventh-grade students. Modification in attitude was measured by use of Osgood's semantic differential technique. Attitude modification toward the concepts "Black American," "White American," "Progress for Me," "Progress for My Race," and "Progress for Everygoay" were the dependent variables of the study.

The sample used in this research consisted of the Black seventh-grade students of an integrated intermediate school in New York City. The experimental and control groups consisted of 30 students each, a total of 90 students, 47 boys and 43 girls.

Two four-week course sequences in Black American history were conducted as independent variables for the study: a Black biography course sequence stressing individual achievement and prominence of famous Black Americans without focus on oppression of Blacks in the White society, and a course sequence depicting the struggle of the Black minority against an oppressive White society.

The research data consisted of scores on three scales of the semantic differential technique: evaluation, activity and potency. The evaluation scale was considered as the principal indicator of attitude, while the other two scales were considered as lesser indicators of attitude according to Osgood's findings. The scales were administered to the subjects on two occasions; the first testing, in the week prior to the start of the four-week course sequences and the second testing, in the week following the completion of the course sequences.

It was hypothesized:

1. Attitudes of Black seventh-grade students toward the concept "Black American" would be more favorably modified following a sequence on Black biographical history stressing achievements of famous Black individuals, than (a) following a sequence in Black American history depicting the struggle of the Black minority against an oppressive White society or (b) following a sequence in American history not focusing on the Black experience.

2. Attitudes of Black seventh-grade students toward the concept "White American" would be more unfavorably modified following a sequence in Black American history depicting the struggle of Blacks against an oppressive White society than following (a) a sequence in Black biographical history stressing individual achievements of Blacks or (b) following a sequence in American history not focusing on the Black experience.

3. Attitudes of Black seventh-grade students toward the concept "Progress for Myself" would be more favorably modified following a sequence of Black biographical history stressing individual achievement than following (a) a sequence in Black American history depicting the struggle of the Black minority against an oppressive White society or following (b) a sequence in American history not focusing on the Black experience.

4. Attitudes of Black seventh-grade students toward the concept "Progress for My Race" would be more favorably modified following a sequence in American history depicting the struggle of the Black minority against an oppressive White society than following (a) a sequence in Black biographical history stressing individual achievement or following (b) a se-

quence in American history not focusing on the Black experience.

5. Attitudes of Black seventh-grade students toward the concept "Progress for Everybody" would be more favorably modified following a sequence in Black biographical history stressing the achievements of individual Blacks than following (a) a sequence in Black American history stressing the struggle of the Black minority against an oppressive White society or following (b) a sequence in American history not focusing on the Black experience.

None of the hypotheses concerning differential modification of race-relevant attitudes was supported by the empirical results of this study of the effects of exposure to different types of short Black American history course sequences.

15. White, Milo Ritter, Jr. The Teaching of the History of the Negro in Selected Secondary Schools in Michigan. The University of Michigan, 1970. 268p. Adviser: Stanley E. Dimond. 70-21,814.

This investigation explored the teaching of Negro history in grades 10 through 12 in selected Michigan secondary schools. In May and June, 1969, a sample of fifty-two teachers and administrators in forty-three schools with varying percentages of Negro and white students was interviewed concerning the teqching of Negro history.

Three different courses were identified: (1) the separate course, an elective concerned primarily with Negro history; (2) the integrative course, the regular American history course which recently included content and materials on Negro history; (3) the traditional course, the regular course with no additional content on the Negro beyond that presented in the typical history textbook.

The following statements indicate the status of Negro history. Sixty-two per cent of the schools in the total population of 154 schools have the traditional course and 15 per cent have the separate course. The separate courses were usually identified in schools with Negro students enrolled. These courses were primarily one semester courses, were available to most students without prerequisite, provided the same credit as any other academic course, and were considered a part of the curriculum regardless of the extent of integration in other history courses. The separate and integrative courses considered dissemination of historical knowledge as their primary rationale and objective. The separate courses were organized topically and chronologically. The integrative courses used special units and the thematic approach. Half of the teachers of the separate courses utilized methodology from that usually practiced.

Black teachers perceived race as a major criterion for their assignment to the separate courses and as crucial for their success. The majority of the teachers of the separate and integrative courses had no academic preparation or experience in teaching these courses.

The schools with the traditional courses discussed the Civil War and Reconstruction, the Civil Rights movements, and slavery as an institution most often in presenting Negro history. While all recognized deficiencies in their textbooks and the need for more instruction in Negro history, only 50 per cent perceived any major changes in the American history courses. The absence of Negro history was attributed to the lack of teacher insight into the Negro revolution, to teacher uncertainty over the proper utilization of instructional materials, and to teacher doubt about the validity of the Negroes' role in history.

The curricular change process differed from the usual process in 50 per cent of the schools with the separate courses. Pressure for change came from the Negro community, and from a minority of students and members who criticized the present course and offered alternative courses.

Schools with the separate courses have added more content about the Negro to other courses than have the schools with the integrative courses.

The Negro student in the separate courses was perceived to have improved his academic performance substantially and to have experienced a change in his attitudes toward self, the white majority, and the civil rights movement.

There was no substantial opposition to the adoption and the diffusion of the separate and the integrative courses attributable to the properties of these courses or to the characteristics of the educational system.

Changes in the Negro student's attitudes were perceived by respondents byt extensive reforms in the educational environment were judged necessary for these changes to be meaningful.

16. Harrison, Daphne Maxine Duval. An Exploratory Study of Three Curricular Approaches to Black Studies and Their Effect on the Acceptance of Blackness by Middle Grades Pupils. University of Miami, 1971. 221p. Adviser: Dr. John M. Jenkins. 71-19,867.

This was an exploratory investigation of the effects of three curricular approaches to black studies on the dimension of black acceptance. Black acceptance is viewed here as a dynamic component of the self concept. The purpose of the study was to determine if any or all three of the approaches had significant effect on the self as measured by the How I See Myself Report (HISM) by Gordon and on that dimension of the self defined as black acceptance. Specifically, the area pursued in the investigation was: how does a particular approach to black studies affect the black learner's perceptions of himself as reported on standardized and non-standardized measures?

Three types of curricula were designed and administered which centered on protest movements in America. One was an integrated social studies course which mentioned blacks only where they appeared in historical chronology. The second treatment was a history course on black protest in America. The third treatment was a contemporary view of protest as it exists in the black community. Treatments one and two were taught by one classroom teacher. Treatment three was taught by a variety of blacks who were or had been involved in social protest recently.

Data were collected by means of a pretest and posttest administration of the HISM; a taped interview with each subject; school cumulative folders; and written essays from each subject.

Univariate analyses of covariance were the basic means of analyzing quantified data to determine if results were affected by the interaction of socioeconomics with treatment and black acceptance.

The weakness of poor instrumentation curbed the possibilities of reaching positive conclusions. Subjective data, such as the interview and the essays, seemed to provide reason for not accepting the analyses conclusively.

The reader is cautioned not tomake judgment for or against black studies until certain factors are considered. The purpose for establishing black studies in the curriculum and the objectives sought should be understood in relation to the type of student body and staff which would be involved.

It was felt that the inability to control certain variables inhibited the results. No significant relationships were found. This may have been due to the unreliability of the quantified data, the small sample size or the very limited number of weeks which the treatments covered. Such factors should be considered carefully if a replication of the study is attempted.

17. Zunino, Gerald Julius. An Examination of American Negro--Afro-American--History and Its Relationship to the Senior High School Social Studies Curriculum. University of Southern California, 1971. 508p. Advisor: Professor Olson. 71-21,510.

Problem: The purpose of the study was to determine the extent of agreement or disagreement among historians and educators as to the purposes and methodology for writing and teaching American Negro history as well as the facts and interpretations which it should include. Additionally, the intent was to determine whether recently developed senior high school curricula in this subject area were historically accurate in light of recent scholarship.

Procedure: The study involved the following steps: (1) A review of writings in American Negro history ot identify early misinterpretations and current efforts to correct them; (2) An examination of educators' and historians' opinions concerning the function, nature, and interpretation of Afro-American history to determine if disagreements existed and, if so, to identify and delineate them; (3) The collection and analysis of data in the area of American Negro history to prepare a synthesis of important data and significant differing interpretations in the subject area which would provide the basis for the development of the analytical tool, a content outline; (4) The utilization of both the synthesis and the recommendations of educators and historians on the facts and interpretations considered necessary in senior high school courses on American Negro history to develop the content outline which served as the criteria for the curricular analysis; (5) The collection of certain senior high school curricula dealing with Afro-American history for the purpose of analyzing them to determine whether they reflected current historical research.

Selected Findings: (1) Historians and educators disagreed as to the purpose, content, interpretation, and methodology of American Negro history courses. For example, some favored courses that would objectively discuss the historical role of both whites and Blacks and would be taught by persons of any race. Others favored courses that would enhance black pride and promote Black Nationalism and would be taught primarily by Blacks: (2) Historians disagreed as to interpretations of certain areas of American Negro history; (3) Curricula currently used varied widely as to format and as to the grade levels and types of courses for which they were intended; (4) The curricula were in partial agreement with recent historical scholarship. While almost all contained some results of recent research, few were considered consistently adequate throughout. The most obvious deficiencies were the omission or inadequate explanation of certain significant topics. Another serious deficiency was the frequent absence of explanations of historiographical techniques as well as the existence of, reasons for, and results of disagreements among historians.

Selected Conclusions: (1) Due to present and foreseeable future disagreements about Afro-American history courses, it will be difficult to prepare courses acceptable to all groups, with the probable result that separate courses with differing emphases and purposes will have to be prepared; (2) Historians will continue to disagree about interpretations of certain areas of American Negro history. Review of current writings indicates no end to this practice.

Selected Recommendations: (1) The historically accurate role of the American Negro and other minority groups should be incorporated with proper perspective into regular American history courses; (2) Teachers of both regular and separate courses dealing with the Black American should be properly trained in the nuances and complexities of the subject area, including the significant differing historical interpretations rather than be superficially exposed to the topic; (3) The preparation of instructional materials should be shared in by teachers and other specialists in this subject area. Materials should include both sufficient accurate facts and interpretations and explanations of historiographical techniques and disagreements among historians; (4) School districts should anticipate demands for these and other courses so as to have sufficient time to prepare adequately curricular materials.

18. Bingham, Jane Marie. A Content Analysis of the Treatment of Negro Characters in Children's Picture Books 1930-1968. Michigan State University, 1970. 218p. 70-20,437.

The purpose of the study was to ascertain how the American Negro had been depicted in the illustrations of children's picture books published between 1930 and 1968. The major questions asked were:

Are a variety of Negro physical characteristics shown in the illustrations of the total population of books, and does this variety differ markedly during the four historical periods?

Are Negroes shown in a variety of interior and exterior environments, or is there a preponderance of one type of environment shown? Does this variety differ markedly during the four historical periods?

Are Nego adults shown in a variety of adult roles? What is the proportion of Negro adult roles compared to the Caucasian adult roles found in the same population of books? Does the proportion differ markedly during the four historical periods?

Do Negro characters interact with a variety of persons in a variety of ways? What is the race, sex, and age of the persons with whom they interact? Is the type of interaction parallel, non-physical, or physical? Does the variety of persons and types of interaction differ markedly during the four historical periods?

Can any statements be made as to the difference in treatment of the Negro characters in the several areas of analysis during the four historical periods outlined in the study?

A total of forty-one books which included 1,067 illustrations were found on recommended book lists used by librarians, teachers, and children's literature specialists. The books were grouped into four historical periods: 1930-1944, 1945-1954, 1955-1964, 1965-1968.

Four major categories were constructed in order to differentiate and describe the treatment of Negro characters in the book illustrations: physical characteristics, environmental characteristics, adult roles, and character interaction.

A coding instrument, constructed for the purpose of the study, included sub-categories of the major categories which were derived from the questions posed, and were based on the content analyzed and the type of analysis used. Raters were used to determine whether the instrument was yielding meaningful results.

The major conclusions of the study were:

(1) Negro characters were depicted with a variety of skin colors, hair textures, hair styles, nose, lip, and eye formations and body builds. Characters showed the least amount of variety in their hair coloring. While the variety did not differ markedly during the historical periods there were some differences. Most exaggerations, as in eye and lip formations and body build, occurred in the earliest period (1930-1944) and seemed to reflect the prevailing social concepts of the time.

(2) Almost no important conclusions could be drawn about environmental conditions because of the paucity of interior and exterior situations in all historical periods. Period four (1965-1968) did include, however, more interior and exterior details, possibly because of the growing social concern and demand to show Negroes in more realistic settings.

(3) Considering all historical periods, there were more Negroes in work roles in the first two periods (1930-1944 and 1945-1954), than there were Caucasians in the last two (1955-1964 and 1965-1968). The Negroes in the first period were more likely to be shown in professional roles than occupational. In the second period, more Caucasians were found in occu-

pational roles than Negroes. In periods three and four (1955-1964 and 1965-1968), more Caucasians were found in all roles--professional, occupational, and laborer. This apparent discrepancy with the social revolution of the latter periods might be accounted for as an attempt to show more complete integration within society as a whole.

More Negro than Caucasian home roles were shown, with more mothers than fathers being present. Few adults other than parents were shown. Understandably, more Negro than Caucasian home roles were shown because almost all of the juvenile main characters were Negroes.

(4) Though a variety of types of interaction and characters were identified for all periods, none of the Negro main characters interacted in any way or at any time with a Negro female teen-ager or a Caucasian baby. Few Negro male teen-agers, Negro babies, Caucasian male and female teenagers, and Caucasian female juveniles were identified.

The interaction among a variety of characters did not differ markedly from period to period. However, the variety and type of interaction did differ during the four historical periods. The amount of physical interaction increased from period one (1930-1944) to period four (1965-1968), most probably reflecting the greater amount of interaction which was being encouraged in society as a whole.

19. Small, Robert Coleman, Jr. An Analysis and Evaluation of Widely Read Junior Novels with Major Negro Characters. University of Virginia, 1970. 395p. 70-26,568.

In recent years many educators have recommended the use of literature by and/or about Negroes with both Negro and Caucasian elementary and secondary school students. Important among the specific works suggested for use are works of fiction written for the adolescent reader, the so-called junior movels. Serious wuestions have, however, been raised about the literary worth of junior novels in general; and, as appreciation of quality in literature is one of the fundamental goals of most secondary school English programs, several studies have been made of the literary quality of these books. These studies, however, have been concerned with junior novels in general and carried out prior to the recent upsurge of interest in Negro literature in the secondary school. Consequently, this study was performed to answer the specific question: To what extent do junior novels with major Negro characters possess recognized literary qualities?

Since the established purpose of the junior novel is to interest adolescents in reading and literature, those junior novels with major Negro characters which had been widely read by teenagers were selected as the ones most worthy of study. A group of teachers and librarians who had shown by their publications a knowledge of the type of book under study or who were recommended by one of several organizations concerned with this type of book served as judges of how widely read the books had been. Based on a composite of their judgments, a sample of thirty books was chosen for study.

Literary quality was examined by means of an extensive list of critical questions based on an extensive review of critical writings about the novel. The junior novels were evaluated and a rating from a low of one to a high of five was assigned to each book for a number of criteria grouped under eight headings: Definition, Unity, Plot, Characterization, Dialogue, Setting, and Style. In addition, four of the novels, chosen to be as representative as possible of the thirty books under study, were evaluated in lengthy written analyses as illustrations of the researcher's technique of analysis.

The examination of the selected novels revealed that, like all types of novels, they varied in quality from excellent to poor. This range of variation was found not only in the quality of the novels in general but also within each of the critical aspects of the novels. Certain areas such as unity and dialogue were found to be characteristically strong whereas others such as plot and style tended to be weak. On the other hand, there were six books which received an over-all superior rating for each question. These six books were also found to be consistently superior or near-superior in each of the eight categories examined. Those novels were, in order of over-all ratings, The Contender by Lipsyte, Shuttered Windows by Means, Durango Street by Bonham, Jazz Country by Hentoff, Harlem Summer by Vroman, and How Many Miles to Babylon? by Fox. Many other novels were found to possess a high degree of literary quality though less strikingly and consistently. Thus, the original question concerning the literary quality of junior novels with major Negro characters was answered with a qualified yes. As is the case in other genres and sub-genres, some of these novels are consistently excellent. If a genre can be judged by the best works within it, then the junior novel with major Negro characters can be said to possess a very high degree of literary quality.

20. Woodyard, Mary Ann. The Effects of Teaching Black Literature to a Ninth-Grade Class In a Negro High School in Picayune, Mississippi. The University of Tennessee, 1970. 109p. Adviser: Dr. Mark Christiansen. 71-17,786.

The purpose of this study was to determine the extent to which reading ability and self-concept were influenced by the teaching of all black literature rather than the materials in the state adopted text to a ninth-grade class at George Washington Carver High School in Picayune, Mississippi.

Two ninth-grade literature classes with 30 students each were taught for one semester. One of the classes was gaught material from the state adopted text; the other was taught a collection of black literature.

The California Reading Test and the Tennessee Self Concept Scale were administered to both classes at the beginning of the semester and again at the end of the semester. Mean score increases for the two classes were tested to determine significant differences in increased reading ability and change in self-concept.

Analysis of the data produced the following results. Both classes increased their reading scores, but there was no significant difference in increases between the two classes. Both classes scored higher on all dimensions of the self-concept scale, but Class II, which had been taught the black literature, scored statistically significantly higher on all five of the self-evaluative dimensions.

The results of the study seem to warrant the following conclusions: (1) the kinds of reading ability measured by achievement tests is not greatly increased or retarded by studying black literature instead of the state adopted text; (2) the self-concept or self-esteem of Negro students may be greatly enhanced by studying black literature; and (3) textbook publishers would be justified in giving wider recognition to Negro writers and material about Negroes.

21. Booth, Martha F. Black Ghetto Life Portrayed in Novels for the Adolescent. The University of Iowa, 1971. 172p. Advisor: Professor G. Robert Carlsen. 71-22,008.

The purpose of this study was to examine and evaluate selected aspects of adolescent novels, published since 1950, treating the black adolescent, aged 10-19, living in an inner-city ghetto. A primary tool in the evaluation of these novels was the Report of the

National Advisory Commission on Civil Disorders which was used as a standard by which each book was evaluated in terms of the author's honesty in treating the adolescent in his total environment. Critical approach was primarily sociological.

Investigation revealed that adolescent novels with the specified character and setting were limited in number. Six booklists were sources for the final selection of the eleven novels which met the established qualifications.

The study was designed to answer the following question about the novels: Measured by the evaluative criteria based on the findings of the Report of the National Advisory Commission on Civil Disorders, do the fictional accounts of the black ghetto adolescent give a valid picture of the life of the ghetto in each of the following areas?

1. Home and family relationships
2. Peer relationships
3. Attitudes toward the authority of police, welfare, and whites
4. Attitudes toward the educational system

No one book treated every characteristic marking ghetto life, but all eleven novels contained some of the characteristics which distinguished the black ghetto adolescent. The books which depicted the greatest number of characteristics relating to the black ghetto adolescent were the books considered as most valid in terms of the criteria based on the Report of the National Advisory Commission on Civil Disorders. Those appearing at the top of the following list treated a large number of characteristics and/or treated them more comprehensively than did novels toward the bottom of the list.

1. The Diary of A.N. by Julius Horwitz
2. The Cool World by Warren Miller
3. Soul Brothers and Sister Lou by Kristin Hunter
4. When the Fire Reaches Us by Barbara W. Tinker
5. The Contender by Robert Lipsyte
6. Durango Street by Frank Bonham
7. Hog Butcher by Ronald Fair
8. Enoch by Charles Raymond
9. The Nitty Gritty by Frank Bonham
10. Harlem Summer by Mary E. Vroman
11. Tessie by Jesse Jackson

The conclusion may be drawn that the eleven novels gave a valid picture of the life of the black ghetto adolescent in his total environment as measured by the established criteria.

Also included in the study were speculations about the effects and impact of the novels on young readers, both black and white. A summary of each novel was included in the Appendix of the study.

22. Fisher, Winifred Maxine. Images of Black American Children in Contemporary Realistic Fiction for Children. Columbia University, 1971. 174p. Advisor: Professor Alice Miel. 71-28,000.

The purpose of the study was to describe the images of the everyday lives of black American children found in contemporary realistic fiction written for children. The search for images focused on the activities recurring in the daily lives of the fictional children; the participation of the characters in formal and informal social institutions and associations; and the attitudes, values, and goals attributed to the characters by the authors of children's fiction.

The population of the study was defined as the forty children's books classified as realistic fiction written about black American children in contemporary settings with central characters between the ages of eight and fourteen listed in one of four sources: The James Weldon Johnson collection in the Countee Cullen Library in New York City and three current bibliographies listing books about black Americans.

The books contained six main categories representative of the lives of fictional black American children: 1. Home and Family Life. 2. School experiences. 3. Recreation. 4. Community Services and Participation. 5. Religion. 6. Emotional Lives. Numerous subtopics were included in each of these main categories. As the books were analyzed, passages relating to each category in the study were made, and the images of black American children in children's contemporary fiction were compiled.

The conclusions in this study consisted of the images of black American children found in the children's fiction examined. Focusing on the main characters in the forty books, the following recurring images were compiled. Dissenting opinions were sometimes attributed to minor characters in the books. 1. The fictional children were found living in all sections of the United States, with one-fourth of the characters living in New York City. The homes ranged from slums and migrant workers' camps to middle-class suburbs. Parents' occupations ranged from professional workers to laborers. There were no serious conflicts between the main black character and the adults in his family. 2. Education was valued as a means of getting ahead and as an aid to personal development by most of the main characters. 3. Recreational activities varied with the age of the characters and the type of community in which the story was set. 4. Interaction between the main character and the community was varied. Acceptance by the community was sometimes a factor in the plot. 5. There were inferences to religion in half of the books with varying amounts of involvement in church activities. 6. The main characters' career plans, personal development, and reactions to situations unique to black children were major aspects of the emotional lives of the children in the selected fiction. Frequent problems of loneliness and rejection were found.

The following recommendations for further research were suggested for continuing the analysis of minority groups in children's literature: 1. A comparison of the images found in children's literature with sociological studies of black Americans in order to determine the accuracy of the literary images. 2. A study of illustrations of black Americans and other minority groups in children's literature. 3. An analysis of literature written earlier in order to determine the changes in the images of black Americans over a period of time. 4. A study at a future date to determine the direction of the changes that are occurring in characterizations of minority groups in children's literature. 5. A study of informational books and other types of literature about black Americans. 6. Experimental studies to determine the effect of literature on changing children's attitudes toward minority groups. 7. Studies concentrating on the psychological process rather than the sociological content of children's books about minority groups.

23. Lancaster, Joyce Woodward. An Investigation of the Effect of Books with Black Characters on the Racial Preferences of White Children. Boston University School of Education, 1971. 144p. Adviser: Dr. B. Alice Crossley. 71-26,711.

The influence of books on human behavior has been attested since ancient times. Today books have been advocated as a solution to the difficult problem of combating racial prejudice. Many educators and librarians have recommended the inclusion of children's books with black characters in the school curriculum. It is thought that empathy with a black character in a story may cause a change in attitude toward Blacks.

Festinger's research on attitude change through the creation of dissonance lends support to the theory of empathy. Festinger found that involving an individual in an action which disagreed with his attitude was likely to effect a change in attitude.

Although much has been written on the influence of books, few experimental studies have been reported. Shirley (1969) documented the kinds of influence from books which high school students report. Litcher and Johnson (1969) found a significant attitude change from the use of multi-ethnic readers. Jackson (1944) concluded that books could be effective in changing racial attitudes, but Carlsen (1948) disagreed.

To investigate the effect of reading books with black characters on the racial preferences of white children, a picture test was constructed based on the work of Horowitz (1938). The Race/Activity Decision Criteria Picture Test is designed to measure the degree to which race is used as a criteria for decision-making.

Fifty-six children's books with black characters were rated by librarians and teachers on literary quality and ability to foster good race relations. These books were read during class time by 125 fifth grade students in an all white suburban school. All reading was voluntary and was not associated with regular assignments.

A posttest was administered and the data was analyzed by a multiple regression analysis system using a computer program which allowed either specified or unspecified ordering of variables.

Due to non-linearity of the test scale, the population was divided on the basis of posttest scores into two groups: (a) those who displayed no racial preferences or a bias toward Blacks, and (b) those whose scores indicated a prejudice against Blacks.

Results of the analysis indicated that the effect of books on racial preference is not a simple one-to-one relationship. In the Bas/No Preference Group, the greater the number of books read, the less often race was used as a decision-making criteria. For the Prejudiced Group, however, the greater number of books read was associated with higher prejudice scores. Results were significant at .05 level for both groups.

The quality of books read as defined in this study was not significantly associated with posttest scores. Specific content of books was significant only for the Bias/No Preference Group. In this group, reading about black characters with socio-economic status was significantly associated at the .01 level with greater bias toward Blacks.

Although these findings generally support the theory that books are effective in influencing human behavior and indicate that this effect is cumulative, the implication is clear that, as yet, we do not have sufficient knowledge to make reliable predictions of the effect of particular books on individuals. The relationship is complex and requires further study.

It would appear that most schools would be justified in including books with black characters in their curriculum. However, books should not be relied upon to provide the exclusive thrust of a program to alleviate prejudice, especially in communities where extreme prejudice is the norm.

24. Luck, James William. Identity and Image Development of Students Through Black Literature. University of South Carolina, 1972. 166p. 72-18,155.

The project is focused on the necessity of aiding trachers and students in literature classes on the secondary level. More specifically, the work is designed to:

1. Determine and report the extent to which black literary figures and their works

are included in anthologies in current use in secondary schools.

2. Determine and report on the availability, both historically and currently, of high quality literary products of black authors.

3. Show how the inclusion of such Black Literature
    a. is necessary in view of the basic philosophical foundation of American education.
    b. can enrich and improve the quality of the lives of non-black students.
    c. can serve to improve the chances for positive self-concept development and healthy personalities among black students.

The findings indicate that more recently efforts have been made to include Blacks in literatures, anthologies, however, in order to aid development of minority self-concepts, more needs to be done in this area. The cases cited in the study are supportive of the fact that pupils need models with which they can identify before learning actually takes place.

1. That teachers strive to help young people develop self-concepts and/or identify factors in conjunction with units of work done in American Literature classes.

2. That pupils be encouraged to develop a basis for better human relations concepts as they do in-depth readings in literature courses.

3. That the needs of the pupils should be given prime priority, and that students be allowed to help in the planning and the implementation of their school work with a good deal of freedom and flexibility, yet some guidance involved.

4. That the curriculum be given close scrutiny at intervals, expecially American Literature, and that the teaching process involve innovative approaches: team-teaching, open-access curriculum, flexible grouping, scheduling for large and small group instruction, independent study and other recent approaches.

5. That in-service workshops involving outside and inside consultative help be provided frequently to up-grade teachers.

6. That the content of textbooks now being utilized be re-examined by the governing bodies and that the groups charged with book selection recommend the best possible multi-ethnic materials.

7. That educators constantly do some "soul-searching" to develop better human relations techniques, because school personnel, in general, might be marching to the beat of one drummer and their pupils to a second drummer's beat which has a far distant cadence.

8. That Blacks develop a sense of pride in knowing that their people have made splendid contributions to the field of literature.

9. That Whites develop an awareness of what black writers have contributed to the field of literature so that a keener appreciation can be fostered.

10. That human dignity and the true worth of the individual be stressed as much as possible, as we educate.

Black Studies
General

25. Poulos, Nicholis. Negro Attitudes Toward Pictures for Junior High School Social Studies Textbooks. The University of Michigan, 1965. 222p. 66-6680.

The purpose of this investigation was to determine the attitudes of Negro members of parent-teacher organizations toward hypothetical pictures of Negro personalities and events for junior high school social studies testbooks. The study sought answers to the following questions:

1. What attitudes are held by the population selected regarding the pictures presented?
2. Can groups with similar preferences be determined and described in terms of: (a) sex, (b) age, (c) home stability, (d) number of children in the family attending school, (c) occupation, (f) education, and (g) community participation factors?
3. What is the relationship of the background factors of the respondents and the responses to the classifications of pictures into three periods: slavery, emancipation, and twentieth century?

The need for the study was based on the general uncertainty currently prevalent among large-city boards of education, educators, and textbook publishers regarding Negro-oriented content in school textbooks.

Members of parent-teacher organizations of elementary and junior high schools in the metropolitan area of Detroit, Michigan, served as the respondents. Fifty-five pictures portraying Negro historical personalities and events were selected, made into picture slides, and projected on a screen for group viewing.

The respondents viewed the pictures and recorded their attitudes on a five-point scale from "strongly approve" to "strongly disapprove." Frequency and mean tabulations were made for each picture for the historical classifications and for the composite of all pictures. Chi-square, t-test, and analysis of variance procedures were employed to determine significant differences among the background factors and pictorial response.

It was found that 78 per cent of the illustrations were approved by a majority of the respondents. None of the pictures was disapproved or regarded in doubt by a majority. The five pictures judged most favorably were Martin Luther King, Booker T. Washington, Frederick Douglass, Joe Louis, and W. E. B. DuBois. Those judged least favorably were Malcolm X, slave-labor cartoon, children playing in slum, picking plantation cotton, and stokers shoveling coal.

Significant differences in response at the .01 level were found among the factors of: (1) sex, (2) occupation and (3) community participation, and of education at the .05 level. It was found that:

1. Males were generally more favorable than females to the pictures.
2. Pictorial approval was in proportion to the increasing occupational status of the respondents.
3. The pictures were most favorably received by members of community organizations, somewhat less favorably by community leaders, and least favorably by nonparticipants
4. Respondents possessing at least one year of college education were more favorable to the pictures than those with less education.

There were no significant differences in response among the factors of: (1) age, (2) home stability, and (3) number of children in the family attending school.

Conclusions:

1. The respondents in this study were not as critical of the pictures as were some investigators and critics concerned with existing content in the field of the social studies.

2. The respondents were most receptive to the pictures depicting eminent individuals who enhanced the Negro image rather than to those which portrayed the hardships and privations endured by the race during the past or present.

3. The illustrations of the twentieth-century period were generally most favorable received whereas those of the slavery era were least favorably received.

4. Certain factors in the backgrounds of the respondents had a significant bearing on attitudes toward the composite pictures and also toward those classified in the historical categories.

26. Neusom, Daniel Burghardt. Aproaches for Teaching Black Culture and History in the Public Schools. Wayne State University, 1969. 141p. Adviser: Abraham F. Citron. 70-16,546.

This dissertation is a close analysis of one hundred essays, position papers, instructional units and projects written by teachers, education students and liberal arts graduate students and liberal arts graduate students in Wayne, Oakland and Macomb Counties in southeastern Michigan during 1968 and 1969.

The need is not for detailed quantitative analysis and comparison of those figures but rather for a careful and detailed analysis of the content of the units, projects and plans, to determine what threads of continuity run through the representative papers selected for study.

The tone, approaches, quality and level of sophistication of the teachers who today are teaching black history and culture in the school systems in southeastern Michigan is illustrated by the work done in the project.

These units, outlines and plans have been used by many of the workshop participants who prepared them. An element of the process was to encourage reports to the workshop session of success or failure of the plan in the classroom situation where the participant was teaching. Participants were encouraged also to bring their students to workshop sessions.

These units and position papers are studied for the types of approaches they utilize explicitly and implicitly in the presentation of black history and black culture in the school. Emphasis is on ideological approaches involved.

Recommendations are made based on the experiences of the teachers using these units in their classrooms, selected as representative of typical classrooms in the tri-county area.

27. Dimas, Chris. The Effect of Motion Pictures Portraying Black Models on the Self-Concept of Black Elementary School Children. Syracuse University, 1970. 181p. 70-24,071.

The purpose of this study was to determine if there was a significant difference on the self-concept of black students who view motion pictures portraying black models and black students who view motion pictures portraying white models. The sample of this study included all of the black students in grades four and six of three inner-city schools in Syracuse, New York. Students were randomly assigned within grades to either the experimental or control group.

The experimental materials consisted of 16 mm motion picture film segments available commercially. Included in the motion picture segments were: a black middle class family, Jackie Robinson, black fighting men, black musicians and singers, Martin Luther King, Jr., black athletes and a black postman. The control group viewed comparable motion pictures portraying white models.

The Self-Social Symbols Task and the Self-Concept Scale were used to measure changes in self-concept.

The main hypothesis of this study was: Black students who view motion pictures portraying black models will have a more positive self-concept than will black students who view motion pictures portraying white models. Because this hypothesis tended to be too global, hypotheses were derived using the nine constructs of the Self Social Symbols Tasks and the gross score of the Self Concept Scale.

Analysis of the data described in this study supported the following statements:

1. The experimental fourth and sixth grade groups scored higher on Power, Grouping I, and Grouping II than did the control groups, indicating greater sense of power, greater group identification and greater identification with parents, respectively.

2. The experimental fourth grade group scored lower on Centrality than did the control group, indicating less focusing on the self.

There were no significant differences between black fourth and sixth grade students who viewed motion pictures portraying black models and those who viewed motion pictures portraying white models on (1) Individuation, (2) Esteem, (3) Identification, (4) Dependency, (5) Complexity. There were no significant differences on the hypotheses concerning the Self-Concept Scale, although some changes were noted on the opposite direction from that predicted.

From the evidence above it was concluded that black students who view motion pictures portraying black models will indicate certain aspects of the self as being more positive than will black students who view motion pictures portraying white models.

28. Litcher, John Hannibal. Change in Attitudes Toward Blacks by White Elementary School Children After Use of Multiethnic Curricular Materials. University of Minnesota, 1970. 158p. Adviser: Frank L. Ryan. 71-18,771.

The purpose of this study was to determine if the attitudes and stereotypes of white children toward black children could be positively changed or reduced through the presentation of multiethnic curriculum materials which depict blacks in middle-class as well as lower-class situations. An affect-oriented approach to attitudinal change that emphasized the principle of counter-conditioning provided the theoretical model for the research.

A pretest-posttest, control group design was employed in the study. Four measures of attitudes and one measure of stereotypes were included in both the pretest and posttest. In addition, an achievement test designed to measure cognitive gain as a result of the unit of instruction was administered as part of the posttest. The pretests were administered prior to the use of the multiethnic curriculum materials. The posttests were administered following completion of the unit of instruction.

Two experimental groups and three control groups were established by randomly selecting second grade children and teachers from the five original classroom groups. A stratified random sampling procedure was used to pregroup the children prior to random sampling.

A total of 126 children served as final subjects in the study.

One experimental group of 24 children received a unit of instruction that contained visual materials that depicted mixed racial groups of children in a middle-class setting. The second experimental group of 24 children received an identical treatment but with visual materials that depicted mixed racial groups of children in a lower-class setting. The 78 children in the three control groups received instruction as directed by the regular curriculum of the selected school.

Data collected from the two experimental and three control groups were analyzed by an analysis of variance for the measures of attitudes and stereotypes. A t test of means was used to analyze the results of the achievement test.

No significant differences were noted between the responses of the children in the experimental groups and in the control groups on the five instruments of racial attitude and stereotypes for the pretests and the posttests. However, on a comparison of the pretests and posttests, the responses of the children in the experimental groups and in the control groups were found to be significantly different on one of the instruments. With this one noted exception, the similarity of responses indicated that the treatments designed to change attitudes and reduce stereotypes were ineffective. The reliability of the five instruments of racial attitude and stereotypes ranged from .61 to .91.

The results of the achievement test on unit content designed to measure cognitive gain resulting from the unit of instruction indicated that the mean scores of the children in the experimental groups were significantly higher and different from the mean scores of the children in the control groups. This significant difference suggests that the unit of instruction was a successful cognitive learning experience for the experimental groups

29. Andrews, Pearl Thompson. A Study of the Effects of "Black Studies" on the Self-Concept of Negro Kindergarten Children. University of Illinois at Urbana-Champaign, 1971. 154p. 72-12,071.

The purpose of this study was to examine the effects of Black Studies on the self-concept of Negro five-year old preschool children, and the relationship of this self-concept to their school achievement. Black Studies was defined as a systematic program of study about past and present Negro contributions to American culture.

Seventy-eight students from three kindergarten classes served as subjects for the study. These classrooms were located in an integrated Southern elementary school, with the sample composed of all Black children of diverse socioeconomic backgrounds. The three teachers of the classes participating in the study were Negro females.

The three experimental classes were exposed, over a four-month regular school period, to curriculum materials which focused on the everyday life patterns of the Black society, their symbol systems, their institutions, the roles and relationships found there, as well as information and knowledge about ancient through contemporary Africa. The materials comprising the Black Studies units were presented as part of the regular kindergarten curriculum and not as separate subjects. The units comprising this Black Studies program were from the Black Curriculum Project designed at the University of Illinois, Urbana-Champaign.

Two research instruments were administered before and after the four-month treatment period to assess the children's self-concept and school readiness. These were the modified Piers-Harris children's self-concept test and the ABC Inventory Readiness Test. A test of knowledge was administered after each unit to determine if the children comprehended and assimilated the content of the Black Studies program. Periodic classroom observations of the children were recorded by the researcher and the teachers. In addition, the children's creative poems, dictated stories, songs, plays, art work and other original products were displayed during the treatment period.

The results tended to support the four basic research questions posited for the study: (1) A Black Studies program for kindergarten children proved effective, as shown by the children's responses to items on the knowledge test, (2) Negro children developed a more positive self-concept as a result of being exposed to the program, (3) Negro children improved in readiness test scores, and (4) there was a low but positive relationship between achievement gain and self-concept increase.

It was concluded that school as a social institution, and the content of the curriculum, are two essential aspects of a child's learning experience which can significantly influence the Black child's self-concept and readiness for school achievement. The findings further supported the strategic importance and value of introducing children to an accurate and fair view of the contributions of all racial groups. It was concluded that if one can positively affect the self-concept of young Black children, by showing them the major contributions of their race, one may also aid in erasing much of the early-school difficulties teachers have experienced in reaching minority group children.

30. Arnold, Nancy Joyce. The Effectiveness of the PEOPLE ARE PEOPLE Curriculum Package In producing Positive Attitudes Toward Majority and Minority Group Members in Inner-City and Suburban Elementary Classrooms. The University of Connecticut, 1971. 117p. 72-14,213.

Problem: On the basis of an established need for curriculum packages dealing with human relations in the area of majority-minority group interactions, the People Are People curriculum package for grades 4, 5, and 6 was developed. The over-all objective of the four units is to offer new possibilities of thinking and of acting toward majority and minority group members in order to produce growth in positive attitudes towards majority and minority group members. Majority-group was defined as the racial group in any given classroom which by a numerical count was found to be the most populous racial group in that given classroom, while minority-group was defined as the least populous group in any given classroom.

Method: Two separate samples were used: (a) mostly white, sixth-grade suburban classrooms, and (b) mostly black, fifth-grade inner-city classrooms. The analyses reported were based on twenty-six public-school classrooms: fourteen suburban (seven experimental and seven control, and twelve inner-city (six experimental and six control). Eight hypotheses in the full form were statistically tested. The modified Bogardus Social Distance Scale (1969) was used to measure the effect of People Are People in producing positive growth in attitudes toward majority and minority group members. A second criterion instrument, the sociometric Syracuse Scales of Social Relations (1958), was used only in the inner city to measure the ratings by the class of (a) minority group members, the whites, and (b) the five students in each class receiving the lowest score on the sociometric pre-test. For each of the eight hypotheses, a t-test was conducted between the experimental group and the control group in each separe sample using the post-test minus pre-test mean change score according to Guilford (1965) for each group. The .05 level of significance was used.

Results: People Are People produced growth among suburban mostly white, sixth-grade children in attitudes toward: (a) blacks and (b) groups of people other than whites. Inner-city black children evidenced no growth in positive attitudes toward: (a) whites, (b) blacks, and (c) groups of people other than blacks. Using the classroom as a unit, non-significant results were found for the suburban sample with respect to attitudes toward: (a) the majority group members, the whites, (b) the minority group members, the blacks, and (c) the total composite of majority and minority group members. Likewise, in the inner-city sample, non-significant results were found with respect to attitudes toward: (a) the majority group members, the blacks, (b) the minority group members, the whites, and (c) the total composite of majority and minority group members. In the inner-city, non-significant findings resulted from the sociometric ratings by the classmembers of: (a) the minority group members, the whites, and (b) the five children in each class receiving the lowest ratings on the sociometric pre-test. Each of these two rating areas used two situations in which the classmember rated his peers as meeting the psychological needs of succorance (someone he would choose to talk to when blamed for something he did not do) and of achievement-recognition (someone whose support he would seek in completing a task which would bring approval and commendation).

Conclusions: People Are People when used with suburban mostly white, sixth-grade children in public schools was effective in producing positive growth in attitudes toward: (a) blacks, and (b) groups of people other than whites for the sample used in this study. More research is needed in producing growth in positive attitudes toward whites and toward blacks among mostly black, inner-city fifth-grade children in our public schools.

31. Clark-Jones, Beatrice. An Appraisel of the Treatment of Black Americans in Selected Elementary School Social Studies Filmstrips. Michigan State University, 1971. 166p. 71-31,177.

The purpose of the study was to appraise the treatment of black Americans in a selected sample of social studies filmstrips designed for use in grades four through six of a public school system having a multi-racial composition. To appraise the treatment of black Americans in filmstrips available to children in a pluralistic society, the questions asked were:

Do the filmstrips reflect the producer's sensitivity to sterotypes by the way the material is presented?

Do the filmstrips suggest that one racial segment of the population has a monopoly on worth, capabilities, or importance?

Are black children fairly and equally presented in the filmstrips?

Are black adults fairly and equally presented in the filmstrips?

Are black children given positions of leadership?

Are black adults given positions of leadership if adults appear in the filmstrip? (male and female)

Are there instances of fully integrated groups and settings to indicate the equal status of all members?

Are nonsegregated social relationships indicated by fully integrated groups and settings?

Is the identification of blacks hindered by smudging color over Caucasian facial features?

Are the illustrations designed to produce positive images of racial groups regardless of their similarities and differences?

Do the illustrations convey the uniqueness and worth of black Americans?

Forty social studies filmstrips suggested for grades four, five and six, and located within a public school system near Michigan State University, were appraised. Twenty were randomly selected from the schools and the remaining twenty were selected from the central office, which serves all schools upon request. All of the filmstrips used had at least one frame with black Americans.

A panel, composed of three members, appraised each filmstrip independently using an instrument derived from the Detroit Public School Evaluation Criteria: Minority Treatment.

The Person product-moment correlation and chi-square test of association were employed for analysis of the data. The .05 level of significance was selected as sufficient to reject the null hypotheses (a=.05).

The findings of this study indicated that there was a significant relationship between filmstrips which foster pluralism and the number and percent of black American characters illustrated in the filmstrips. The inclusion of blacks at any one section of filmstrips did not reveal a significant relationship; however, when blacks were illustrated in the beginning, middle, and end sections, the filmstrips tended to receive acceptability ratings.

Filmstrips were more likely to receive acceptable ratings when the illustrations in filmstrips were of multiple occupational status, inclusive of the white collar employee. However, the manual and service occupational category tended to be frequently used.

The filmstrips from the central office tended to be rated as fostering the concept of a pluralistic society more than the filmstrips from the schools. However, the analysis did not show a statistically significant difference.

Only eighty-nine filmstrips included at least one frame with a black American out of a total of more than 900 filmstrips originally viewed. In the sample studied, only six filmstrips were identified as fostering the concept of a pluralistic society. There is a need for many more such supportive filmstrips to be produced and made available if we are to educate a multi-cultural society.

32. Matthews, Robert L. Black Studies, Academic Achievement and the Self-Concept of Selected Tenth Graders. United States International University, 1971. 121p. 71-25,397.

Statement of the Problem: The objective of this study was to determine whether certain kinds of changes would occur in tenth graders enrolled in a "Black Studies" program. Specifically, the aim of the study was to learn whether participation in "Black Studies" would strengthen the self-concept, personal development, and academic achievements of black youths. Special attention was given to the evaluation that the enrollees gave to the program.

Procedures: In the area of academic achievement and personal development, standardized test scores, grade point average, and the number of failure grades were used. Referrals to the Administrative Office for discipline and attendance records were used as indices of intermural citizenship. Two instruments, a Student Self Inventory Scale and a Student Attitude Scale, were used to examine changes of self-concept. A three-factor analysis of variance format was employed for the purpose of analysis of data. The statistical design utilized unequal within cell sample sizes with repeated measure on one factor. The data were processed on a Univac 1108 Computer.

Results: Analysis collected for the study showed that: 1) On the standardized tests of educational achievement, both groups made appreciable gains, but the gains were not significantly different; 2) With regard to grade point average, the data proved not suitable as a rating of performance on change in academic accomplishments; 3) Although there were no statistically significant differences between the Black Studies students and the Control students, higher grade point averages and fewer failure grades were recorded for Black Studies students; 4) The students' favorable evaluation of the Black Studies program as given in interviews contained considerable content that suggested not only valued knowledge which they gained but improved attitudes toward self (sense of pride) and toward others--inclusive of persons of other color.

Recommendations: 1) Educational systems should continue to experiment with variations of the program, especially to learn what special purposes it serves. 2) The curriculum should evolve from the felt needs of the students. 3) Attempts should be made to tailor the learning opportunities of students in such programs as Black Studies. It seemed clear from the students' evaluations of Black Studies that certain aspects of the course meant much to some students, while other aspects meant much to other students. 4) Teachers will need to be trained and retrained to understand the culture of all people with the possibility that ethnic studies will, at least in many places, prove more helpful than the relatively limited courses such as Black Studies. In any case, the improvement of teachers' understanding of culture should provide a shield against negative generalizations, and create more meaningful approaches to self-actualization of all people.

33. Mezz, Sheila Mayers. Effects of a "Black Cultural Positives" Program on the Self-Concepts and Attitudes of Black Junior High Students. Arizona State University, 1971. 210p. Adviser: Dr. William Cabianca. 71-29,400.

An educational program which was developed around the theme of "Black Culrural Positives" was presented to a group of Black seventh and eighth grade students. The purpose of this study was to investigate the effects of such a program on (1) self-concepts of Black participants, (2) on their attitudes toward Black concepts, and (3) on their attitudes toward educational concepts.

The population consisted of Black seventh and eighth grade students in a Phoenix, Arizona junior high school. This population was stratified according to sex and a sample of 36 students was randomly drawn and assigned to the experimental and control groups.

The sample of 36 Black students was randomly assigned to the experimental and control groups. The control group received no treatment, while the experimental group participated in the "Black Cultural Positives" treatment program.

The "Black Cultural Positives" treatment program was comprised of a series of 12 programs which reflected various aspects of Black culture such as music, dance, literature and history. The program which was conducted over a six-week period was presented through audio-tapes, films, and directed activities. A combined cognitive and affective approach was structured into the program.

The treatment program was conducted by the Black female counselor who was assigned to the school in which the investigation was conducted. The program facilitator was trained by the experimenter and specific guidelines were provided for each program session.

Lipsitt's Self Concept Scale was used to assess the effects of the program on the self-concepts of the participants. The evaluative dimension of the semantic differential was employed in order to assess attitudes toward Black and educational concepts. A pretest/posttest design eas employed by which the criterion instruments were administered prior to and on completion of the treatment program.

The data were analyzed by means of Sandler's A test for correlated measures and the Student's t test. The A test was used to compare the differences between the pre and posttest scores for the experimental group and for the control group on each criterion instrument. The t test was employed in order to compare the change score differences between the experimental and control groups for each criterion instrument.

Tests of the hypotheses revealed no statistically significant changes in the pre and posttest Self Concept Scale scores of the experimental and control groups. The first null hypothesis dealing with self-concept change was accepted. While the changes were not statistically significant, a trend in the direction of improved Self Concept Scale scores was demonstrated within the experimental group. No significant differences were found be-tween the Self Concept Scale change scores of the experimental and control groups. The second null hypothesis was therefore accepted.

Statistically significant differences were observed between pre and posttest experimental group attitudes toward two of the five Black concepts presented on the semantic differential. No significant pre and posttest differences were observed for the control group. The third null hypothesis, dealing with change in attitudes toward Black concepts, was therefore rejected. Change score differences between the experimental and control groups were found to be significant for one Black concept. Thus, the fourth null hypothesis was rejected.

No significant pre and posttest differences in attitude toward educational concepts were observed for the experimental group or the control group, nor were significant change score differences observed between the experimental and control groups. The fifth and sixth null hypotheses were therefore accepted.

The conclusions drawn from the results of this investigation are summarized as follows: (1) A program of "Black Cultural Positives" has the potential for stimulating improved self-concepts for Black participants; (2) Participation in a "Black Cultural Positives" program produces positive change in attitudes toward Black concepts on the part of Black participants; and (3) A "Black Cultural Positives" program does not produce changes in attitude toward educational concepts on the part of Black participants.

Mathematics

34. Dunson, Charles Kenneth. A Descriptive Analysis of the Mathematics Curriculum in the Predominantly Negro High Schools in the State of Georgia. Colorado State College, 1969. 229p. 70-7123.

This study was an attempt to determine the present status of the mathematics curriculum in predominantly Negro high schools in Georgia using the 1959 recommendations of the Commission on Mathematics as a criterion measure. Principals and mathematics teachers provided the data for the study by completing mailed-questionnaires. Eighty-one schools, representing a mathematics population of 27,156 students, 274 mathematics teachers, and 81 principals, participated in the study. Nineteen were classified as large schools, 34 were classified as middle-sized schools, and 28 were classified as small schools.

Major Findings:

1. All schools reportedly offered general mathematics, Algebra I, and geometry.
2. Only large schools offered mathematics courses beyond the level of trigonometry.
3. Seventy per cent of the schools had graduating classes of less than 91 students.

4. Sixty-two per cent of the schols had fewer than 21 per cent of their graduates enter college during the past five years.

5. Seventy-three per cent of the schools had no more than one full-time teacher working in guidance and/or counseling.

6. At least one unit of mathematics was a graduation requirement by all schools.

7. Only six schools had used experimental materials.

8. Sixty per cent of all textbooks being used were classified as modern.

9. Approximately 56 per cent of the students enrolled in mathematics courses were enrolled in general mathematics courses.

10. From a mathematics population of 27,156 students, which included 6,980 twelfth graders, only 33 students were taking analytic geometry, and only 38 students were taking elementary functions.

11. The Advanced Placement Test was being administered by schools in each classification, although small schools and middle-sized schools were not providing adequate preparation for such a test.

12. Thirty-six per cent of the teachers had less than 25 semester hours of undergraduate mathematics, while slightly less than 37 per cent had had no graduate mathematics courses.

13. Most teachers indicated a need for additional training if they were to teach analytic geometry, calculus, and matrix algebra.

14. Seventy-five per cent of the teachers were certified to teach mathematics by the State Department of Education.

15. Fifty-three per cent had never attended a NSF Summer Institute, while 80 per cent had never attended an Academic Year Institute.

16. The National Council of Teachers of Mathematics ranked fourth in terms of professional affiliations, and The Mathematics Teacher ranked third in terms of professional publications regularly read.

17. The majority of the principals and mathematics teachers agreed that (a) the mathematics programs in the schools were, in general, good, (b) the "new" programs in mathematics should lead to a much improved curriculum in high school mathematics, and (c) the programs in the schools were either transitional or basically modern.

Conclusions:

1. Only a limited number of these schools are following the 1959 recommendations of the Commission on Mathematics.

2. The teachers need additional preparation in mathematics. This is especially true in the areas of analytic geometry, calculus, and matrix algebra.

3. The teachers are not as professionally oriented as it is hoped that they would be.

4. The percentage of modern textbooks being used is not as high as it should be, although 60 per cent of the textbooks were classified as modern.

5. As important as the knowledge of mathematics is in this day and age, not enough students are taking mathematics courses beyond general mathematics. This may be attributed to the limited amount of professional guidance and/or counseling services available in these schools.

6. The small percentage of graduates who enter college further indicates a need for improving the guidance and/or counseling services in these schools.

7. The small schools appear to have the greater problem.

Recommendations were made at the conclusion of the study.

35. Green, Robert Wesley. A Survey of the Mathematical Instructional Materials Used in Teaching Culturally Disadvantaged Children Grades 1 Through 6 Throughout the United States. Indiana University, 1969. 422p. Advisor: Dr. Ronald C. Welch. 70-11,670.

The purpose of this study was to study the availability, extent of use, and purpose for which materials are used in teaching mathematics to culturally disadvantaged elementary children throughout the United States.

The population for this study consisted of 232 teachers of culturally disadvantaged children grades 1 through 6 in 15 schools of eight randomly selected cities in five geographical sections of the United States: Southeast, South Central, North Central, Southwest, and Northwest. The following procedure was followed:

1. The data were obtained through a questionnaire, interviews, and a general information sheet.

2. The questionnaire listed 59 instructional materials and provided the following broad categories: availability, extent of use, and purpose of use. Under these broad headings were sub-categories. The sub-categories under availability were furnished by the school, teacher made, and not available. A five point continuum that extended from ner to frequently was provided under extent of use. The sub-categories under purpose of use were demonstration, student manipulation, display, and others. Teachers were asked to check the cell that most appropriately described their situation. The questionnaire also asked teachers to list and give directions for use of three activities and three materials that had been used successfully with culturally disadvantaged children.

3. Data from the questionnaires were tabulated for each section and for each grade.

Based on the data for the population involved in the study the following findings were drawn:

1. Of the materials listed in the questionnaire, an average of 38 percent were furnished by the schools to teachers of all grades and sections. Most materials were furnished by schools to grade one (43 percent), and least to grades two and six (35 percent). Most materials were furnished by the school to teachers of Section Four, the Southwest (52 percent) and least to the teachers of Section One, the Southeast (34 percent).

2. First grade teachers used more materials and used materials more frequently, while sixth grade teachers used materials least frequently.

3. Teachers in the Southeast used materials more frequently than teachers of any other section although the school furnished less. Teachers of the Southwest used more materials than the teachers of any other section.

4. Only an average of 49 percent of the materials tested in the questionnaire were used by teachers and 28 percent used frequently.

5. Although use of materials by teachers varied from grade to grade and from section to section, teachers of all grades and sections combined indicated that the most frequently used materials were: chalkboard, paper, bulletin board, flash cards, counting objects, charts, printed material, course of study, clocks, numberline, workbooks, sticks, puzzles, magazine pictures, other pictures, contests, abaci, and felt pieces.

6. Teachers of all grades and sections combined indicated that materials were used most frequently for student manipulation. However, sixth grade teachers indicated that materials were used most frequently for demonstration.

7. Teachers of the first three grades listed more materials and activities used successfully with culturally disadvantaged children than did teachers of the upper grades.

On the basis of the findings and within the limitations of this study, the following conclusions were drawn:

1. Schools furnished very few materials for teaching mathematics to culturally disadvantaged children.

2. Schools tended to furnish more materials to lower grades than to upper grades.

3. The amount of materials used in teaching mathematics to culturally disadvantaged children varied from section to section. There was very little variation from grade to grade.

4. Teachers of the first five grades used materials more for student manipulation, while sixth grade teachers used materials more for demonstration

36. Nagel, Thomas Scott. A Descriptive Study of Cognitive and Affective Variables Associated with Achievement in a Computer-Assisted Instruction Learning Situation. 91p. Michigan State University, 1969. 91p. 70-9610.

The problem investigated in this study was to identify variables from the cognitive and affective domains which best relate to achievement as measured by concept block posttests on computer-sssisted instruction drill and practice mathematics materials. Once identified, these variables would then be used to generate linear regression equations which, when validated, could be used to predict achievement for other children before they began the program.

The subjects used were second through sixth graders at Riverside Elementary School, Waterford Township, Michigan, where an RCA Instructional 70 CAI facility is installed. These children made daily use of the facility studying Mathematics by the Patric Suppes' drill and practice mathematics program.

The experimentor used the following instruments to assess affective variables for each child: Children's Personality Questionnaire, Self-Concept and Motivation Inventory, and Thinking Creatively With Pictures. The Individual Communication Project (INDICOM) had already administered the following instruments: Stanford Achievement Arithmetic Subtest, Quick Word Test, Iowa Test of Basic Skills, and the Warner Socio-Economic Scale.

The scores from all of these instruments formed a group of independent variables relating to both cognitive and affective domains for each child. The dependent variable was found by averaging the scores on posttests across several concept blocks studied by CAI.

Because predictive equations were desired, regression analysis employing stepwise addition of variables was used. Each grade was analyzed separately because different mathematical topics are studied at each grade level. This analysis produced the following equations:

Grade 2:

$$\begin{aligned}\text{Posttest Score} = {} & 1.033\ (\text{Stanford Arithmetic}) \\ & + 1.930\ (\text{CPQ-Tenseness}) \\ & - 3.645\ (\text{CPQ-Neuroticism}) \\ & + 0.405\ (\text{SCAMIN-Motivation}) \\ & + 14.546\end{aligned}$$

Grade 3:

$$\begin{aligned}\text{Posttest Score} = {} & 0.748\ (\text{Vocabulary}) \\ & + 1.201\ (\text{CPQ-Shrewdness}) \\ & + 1.849\ (\text{CPQ-Excitableness}) \\ & + 1.603\ (\text{CPQ-Warmheartedness}) \\ & + 59.363\end{aligned}$$

Grade 4:
Posttest Score = 0.353 (Vocabulary) + 0.149 (Language skills) - 0.121 (SCAMIN-Motivation)
+ 0.440 (CPQ-Intelligence)
+ 0.109 (SCAMIN-Self-Concept)
+ 69.888

Grade 5:
Posttest Score = 3.420 (CPQ-Intelligence)
+ 1.114 (Arithmetic Problem Solving) - 0.126 (Creativity-Elaboration)
+ 54.917

Grade 6:
Posttest Score = 0.462 (Arithmetic Concepts)
+ 1.870 (CPQ-Emotional Stability)
+ 0.206 (Language Skills)
+ 3.799 (Sex) + 41.756

Each of these equations was generated using data on three-fourths of the children while one-fourth of the children had been randomly selected to validate the equation. Results of t tests on data supplied by the validation sample showed no significant difference at the $p < .05$ level between predicted and actual average concept block posttest achievement. The standard error of estimate also provided usable confidence intervals for prediction of individual scores.

Differences in achievement between males and females were investigated at each grade level. Results of t tests showed no significant differences for grades two through five; however, grade six showed a significant difference at the $p < .05$ level favoring the boys.

Contrary to expectations there was almost no correlation between CAI achievement and socio-economic status, an inconsistent pattern of correlations with academic motivation, and small but positive correlations with extraversion rather than introversion. Measures of creativity appeared to have little relation to achievement.

One of the broad generalizations which seems warranted from this study concerns the importance of the affective domain. While, as expected, cognitive variables assumed primary importance in all of the regression equations which were generated, a great deal of additional variance was explained by the addition of affective variables.

37. Winzenread, Marvin Russell. Consumable Materials: A Quasi-Programmed Procedure Experimentally Tested in the Inner-City Junior High School Mathematics Classroom. Indiana University, 1969. 77p. Adviser: Dr. Philip Peak. 70-7964.

The purpose of this study was to compare the achievement in mathematics and the attitude toward mathematics of inner-city junior high school classes that used consummable materials taught in a quasi-programmed manner with similar classes that used a contemporary text taught in a conventional manner.

Consumable materials--materials that can be used only once since the student using the materials writes directly on the materials.

Inner-city junior high school--the seventh and eighth grade classes in schools designated as being qualified under the Program for Intensified Education of the Elementary and Secondary Education Act, Title I.

Quasi-Programmed Procedure--the procedure outlined as follows:

Each lesson consists of two parts: oral work and written work. At the start of eight lesson the students receive both parts. The teacher has a Thermofaxed transparency of the oral work and through the use of an overhead projector guides the students through the oral work. The teacher does not lecture but relies on a discussion or query technique. The students are required to fill in the proper responses on their copy of the oral work at this time. When the oral work is completed, the students then do the written work. The teacher is available for assistance at this time. At the end of the period the written work is collected. The teacher's aide grades each pupil's written work each day by indicating which responses are correct and which are incorrect. These papers are returned to the student the next day, at which time they are reviewed by the class. All oral and written work is kept in the student's notebook, and these are kept in the classroom.

The experimental group consisted of nine seventh and nine eighth-grade mathematics classes chosen from the inner-city junior high schools in Indianapolis, Indiana. The control group consisted of twenty-two seventh and nineteen eighth-grade classes chosen from the same population. The classes in the experimental groups used the consumable materials developed in the Cincinnati Public School System in 1966-67 with a quasi-programmed procedure. The classes in the experimental group were visited to make sure that the teachers were using the quasi-programmed procedure. The classes in the control group were using the American Book Company's series. There was no control over methodlogy in those classes.

Gains in mathematical achievement were measured by two original tests which were both administered before the experiment and again at the end of one semester. The two tests measured arithmetic computation skill and knowledge of mathematical concepts. Attitude changes toward mathematics was measured using a questionnaire which was administered during the third week of the experiment and again at the end of one semester. Three comparisons between the groups were made separately for each dependent variable: the seventh grade classes alone, the eighth grade alone, and all classes together. For each comparison made in this study the groups were statistically compared by the use of a simple analysis of covariance with unequal cells where the co-variate was the pretest scores and the dependent variable was the post test scores. Differences were considered significant when they were at or below the 10 percent level.

The seventh grade control classes gained significantly more than the seventh grade experimental classes in achievement in mathematical concepts. In contrast the eighth grade experimental classes gained significantly more than the eighth grade control in achievement. There were no significant differences in attitude change in the seventh grade classes. However, significant differences had taken place in the eighth grade classes and over all classes in attitude changes and they each favored the experimental group.

38. Heath, Paul Allen. A Comparative Study in Problem Solving Ability of a Group of Negro and White Children of Average Intelligence by Socio-Economic Level. The University of Oklahoma, 1970. 72p. Adviser: P. T. Teska. 71-12,574.

The purpose of this study was to compare the performances of three groups of children in a problem solving situation. A special non-language multiple choice problem box with ten problems that consisted of two geometric figures presented in one of eight possible relationships to each other was used to individually test a total of 84 public school students. Each of the three groups included second, fourth and sixth graders who were tested with the Stanford Binet Intelligence Test and scored in the I.Q. range of 95-105. Group I was used to identify subjects who were representative of normal subjects attending a lower socio-economic level white school, Group II used for lower socio-economic level Negro school and Group III used for higher socio-economic level white school.

The following results were reported: (1) the problems which were solved and not solved by each subject, (2) the number of trials used for each problem by each subject, (3) the average number of problems solved with correct verbal generalizations for each problem for each subject, (4) the problems which were solved with a correct verbal generalization and problems solved without achieving a correct verbal generalization.

The results revealed that no significant difference existed among the three cultural groups for any of the ten problems. The average number of problems solved by Group I subjects was 6.92, by Group II subjects was 6.71 and by Group III subjects was 6.92. Chi square values for all ten problems revealed that no significant difference existed among the three cultural groups for the number of problems passed-failed and for the number of problems passed-failed as to achieving the correct verbal generalization. The mean number of trials used to solve each of the ten problems did not show any significant difference at the .05 level when t test values were computed.

Point biserial correlations within each group of the mean number of trials used for each problem solved and also verbalized versus problems solved but not verbalized showed that only in Group III was any significance at the .05 level indicated and then only for three problems. Conclusions from the correlation studies also revealed that the fewer number of trials used to solve the problem the more likely the subject was able to achieve a correct verbalization of the solution of the problem.

39. O'Neill, Jane Anne. An Analysis on Selected Variables of the Effect of a Systems Approach to Teaching Specific Mathematical Skills to Fifth Grade Students from a Disadvantaged Area. The University of Connecticut, 1970. 259p. 71-16,020.

The problem: The purpose of the study was to analyze the effects of a systems approach in teaching specific mathematical concepts to fifth grade students from disadvantaged area schools.

Procedure: The study, a two group comparison was designed to: 1) develop teaching materials on multiplication and division of fractions, to be used individually with a machine; 2) adapt these materials to a teacher-text approach to teach the same mathematical concepts; 3) compare the effectiveness of a systems approach and a teacher-text approach with students from disadvantaged areas; and 4) compare the attitudes toward mathematics of the two groups.

The schools used in the study were randomly selected from schools designated as serving disadvantaged areas of a city and treatments were randomly assigned to the schools. The students in the systems approach were randomly selected from three fifth grades in School A. Students used in the analysis of the teacher-text approach were randomly selected from three fifth grade classrooms in schools B and C which participated in the second approach.

A concentrated period of instruction was bracketed by pretests and posttests in achievement and attitudes towards mathematics, administered by the investigator. The attitude scale used was Dutton's Attitudes Toward Arithmetic, Form C. The achievement test was developed by the investigator following recommended procedures for establishing validity and reliability. The reliability obtained using a Spearman-Brown analysis was .957.

The findings: An analysis of covariance was used to analyze the data; the control variables were pretest scores and mental age; the criterion variable was posttest scores.

The teacher-text approach was more effective in the area of achievement. An analysis of the time spent on the lessons also indicated that this approach was more efficient.

There was no significant difference in attitudes toward mathematics due to teaching methods.

Though the students learned with the systems approach, research is needed on further modifications in order to improve this approach as an instructional alternative.

40. Al-Nasser, Bhani Visissobha. The Relationship Between the Cultural Background of Disadvantaged Children and their Performance on an Arithmetic Test. The Ohio State University, 1971. 213p. Adviser: Professor Ross L. Mooney. 72-15,170.

The aims of this study were threefold: (1) to investigate whether the Arithmetic Test in the Comprehensive Tests of Basic Skills is Biased against the culturally disadvantaged students, (2) to compare the patterns of mathematical ability of various cultural groups, and (3) to investigate the relationship between mathematics achievement and cultural background.

The test battery used to measure mathematics skills is the Arithmetic Test in the Comprehensive Tests of Basic Skills (Form Q, level 2). The test consists of ninety-eight items classified under four mathematical abilities: recognition and/or application, translation, interpretation, and analysis.

The population of this study is the fourth and sixth-grade students in the Columbus (Ohio) Public Schools. Criteria for selection of the school sample include eligibility for Title I services, percentage of white pupils, incidence of ADC (Aid to Dependent Children) cases in the enrollment, pupil mobility, pupil absence, and pupils above age in grade level. By applying these criteria, a stratified random sample of 240 students was drawn from the selected schools to fit into four cultural groups (nonwhite disadvantaged, white disadvantaged, nonwhate advantaged, and white advantaged) of the two grade levels (grades four and six), thus making a total of eight groups of 30 students each. Within the frame of this procedure, disadvantaged status is comparable to low socioeconomic status. Two designs of analysis were utilized: item analysis and a 4x2x4 fixed model of analysis variance.

Results of the analyses disclosed the following:

1. Mathematics achievement was related to the cultural background; white students did better than nonwhite students, and advantaged students did better than disadvantaged students. The nonwhite students of low socioeconomic status were at the lowest level of achievement.

2. Educational deficiency was cumulative among students of low socioeconomic status, white and nonwhite alike.

3. Comparing the performance on the four types of mathematical abilities within each group, the nonwhite disadvantaged group did their best in recognition and application; the white disadvantaged group did their best in translation, and so did the nonwhite advantaged; and the white advantaged group did best in interpretation. Every group was, notably, relatively weak in analysis.

4. Among the fourth-grade students, the nonwhite disadvantaged were most homogeneous. The situation was not the same for students of grade six of which the white advantaged students were most homogeneous and the nonwhite advantaged were least homogen-

eous.

5. The test was satisfactorily reliable :within the variation of cultural groups. The test was most reliable in the group with the least homogeneity.

6. The test proved to be sufficiently valid for all groups except for the fourth-grade nonwhite disadvantaged.

7. The test was appropriately difficult for all groups except the fourth-grade nonwhite disadvantaged and the sixth-grade white advantaged. The test was too difficult for the former, and too easy for the latter.

8. Seven out of ninety-eight items were judged unfair racially and/or socioeconomically due to the use of difficult words and situations unfamiliar to disadvantaged students.

Suggestions relative to the findings are as follows:

1. The range of difficulty of the test needs to be extended in both directions of easiness and difficulty so that it would be more appropriate for low achieving fourth graders and high achieving sixth graders.

2. Biased items need to be revised.

3. In mathematics instruction, computation of decimals and fractions needs to be reinforced. The art of problem solving needs to be emphasized.

4. Improvement in particular mathematical abilities is necessary for every cultural group. The nonwhite disadvantaged should concentrate on improving their abilities in translation, interpretation, and analysis. The white disadvantaged and nonwhite advantaged students need improvement in recognition and application, interpretation, and analysis. The white advantaged students need to improve their analytical skills.

41. Broussard, Vernon. The Effect of an Individualized Instructional Approach on the Academic Achievement in Mathematics of Inner-City Children. Michigan State University, 1971. 194p. 71-31,166.

The purpose of this study was to determine the effect of an individualized instructional approach on the academic achievement in mathematics of inner-city school children. More specifically, the study attempted to determine what effect does an individualized, diagnostic, prescriptive, instructional approach have on achievement gains in mathematics of inner-city children who are economically and educationally deprived. The study compared students who were given individually prescribed work through independent study, small group discussions, large group activities and teacher-lead discussions with students who received instruction in the tratitional textbook, class group method of instruction in mathematics.

The content in mathematics remain the same for the experimental and control group of students, only the method of instruction was changed. The goal of this study was to establish that worthwhile differences occur as a result of the process of individualized instruction.

The general hypothesis tested was that there will be greater achievement gains in test performance by inner-city children who receive instruction in mathematics through the individualized diagnostic, prescriptive, instructional approach than inner-city children receiving instruction in mathematics through a traditional approach as measured by the Comprehensive Test of Basic Skills, Form R, Level I.

The above general hypothesis was particularized in the following statistical subhypotheses:

1. There is no difference in achievement gains, in mathematics, arithmetical, comp

tational skills between boys and girls in this study.

2. There is no difference in achievement gains, in mathematics, arithmetical computational skills between racial and ethnic groups (Blacks, Mexican-Americans, Whites, and other non-whites, i.e., Orientals, Filipinos, and American Indians) in the study.

3. There is no difference in achievement gains, arithmetical computational skills between fourth-graders in the individualized mathematics program and fourth-graders in the traditional program.

4. There is no difference in achievement gains, arithmetical concepts between fourth-graders in the individualized mathematics program and fourth-graders in the traditional program.

5. There is no difference in achievement gains, arithmetic applications between fourth-graders in the individualized mathematics program and fourth-graders in the traditional program.

6. There is no difference in achievement gains, total mathematics, i.e., arithmetic computation, arithmetic concepts, and arithmetic applications, between fourth-graders in the individualized mathematics program and fourth-graders in the traditional program.

The sample selected for this study consisted of 495 inner-city elementary school children, in the fourth grade, who were enrolled in public schools within the Stockton Unified School District, Stockton, California. About forty percent of students were Mexican-American; forty percent Black; eleven percent were White; and about eight percent other non-white (Orientals, Filipinos, and American Indians).

The design of the study was the "non-randomized control-group pre-test, post-test design." This design was used since the researcher was unable to achieve the rigorously control design that requires the subjects to be assigned to comparison groups at random and therefore, equivalent pre-assemble groups for the experimental and control subjects were used.

The univariate analysis of covariance was applied to the above statistical sub-hypotheses.

In the analysis of covariance it was found that when the Comprehensive Test of Basic Skills was used as the dependent variable to measure arithmetic achievement the findings indicated that:

(1) sex differences did not significantly affect the academic achievement in mathematics, computational skills of the subjects in the study,

(2) racial and ethnic differences did not significantly affect the academic achievement in mathematics, computational skills of the subjects in the study,

(3) the experimental subjects (fourth-graders) in the individualized mathematics program in the area of computational skills achieved significantly higher achievement gains than control subjects (fourth-graders) in the traditional programs,

(4) the experimental subjects (fourth-graders) in the individualized mathematics program, in the area of arithmetic concepts, achieved, significantly higher achievement gains than control subjects (fourth-graders) in the traditional program.

(5) there was no difference in the relative achievement gains of pupils in the two treatment groups in the area of arithmetic applications and,

(6) the experimental subjects (fourth-graders) in the individualized mathematics program, total battery, i.e., arithmetic computation, arithmetic concepts and arithmetic application, achieved significantly higher achievement gains than control subjects (fourth-graders) in the traditional program.

The conclusion is that the individualization of instruction in mathematics accounts for increased gains in achievement scores on the Comprehensive Test of Basic Skills, Arithmetic Computation, Arithmetic Concepts and Total Battery, i.e., arithmetic computation, arithmetic concepts, and arithmetic application. There was no difference in the achievement gains of pupils in the two treatment groups in arithmetic applications.

Subjective analyses were applied to the data and observations of the program. It was found that the participating teachers, specialists, instructional aides as well as the pupils and parents were generally very positive in their statements of attitudes toward the program. On the basis of these observations it is suggested that the individualization of instruction accounted for the desirable changes in behavior, attitude, and learning strategies of the learners.

42. Gussett, James Clayton. The Employment of Non-Standard English in the Development of a Mathematics Course for Seventh-Grade Disadvantaged Students. University of Cincinnati, 1971. 230p. 71-17,229.

The purpose of this study was to write a seventh-grade general mathematics course of study for urban ghetto students using non-standard English and also incorporating the customs and general background of the disadvantaged student; and to evaluate and compare the achievement of such students with a similarly composed group of seventh-grade general mathematics students who used a regular general mathematics textbook.

Procedures. Mathematics materials were developed as follows:

1. A student committee was used to formulate a basic set of hip words which were to be used in the mathematics problems.
2. Urban junior high school students validated the selected hip words.
3. Sample mathematics problems were formulated.
4. A student committee considered the sample mathematics problems and made pertinent corrections.
5. The sample lessons were tested in a classroom situation.
6. Persons qualified in urban education validated the thirty lessons.

After the mathematics materials had been developed, these thirty lessons were used in a classroom for six weeks. Two seventh-grade general mathematics classes at R.R. Moton High School in Farmville, Virginia served as participants. The experimental class used the mathematics materials developed by the writer and the control class used a standard textbook. Pre and post tests were administered. Gain scores for each student were computed and a t-test was employed to test the significance of the difference between the mean gain scores of the experimental and the control groups.

The following conclusions were reached:

1. There is general agreement upon the seventy-three non-standard English words around which the daily lessons for the experimental group were written.
2. A set of general mathematics problems designed specifically for the disadvantaged student can be written in non-standard English.
3. The employment of non-standard English as a vehicle to improve communications in mathematics for disadvantages will not adversely affect the mathematics achievement of the student.
4. The use of mathematics materials written in non-standard English which incorporate the customs and the culture of the disadvantaged student can be used as effectively as a standard general mathematics textbook in teaching general mathematics to disadvantaged secondary school students.

The following recommendations for further research are suggested:

1. Non-standard English should be utilized in formulating courses of study for other secondary school mathematics courses such as algebra and geometry.

2. The motivation factor, along with achievement in classes using experimental non-standard English materials should be explored.

3. A replication of the current research project in a public school setting in which the composition of each participating class is approximately 50% Negro and 50% white should be effected.

4. Non-standard English should be utilized to generate interest and to motivate disadvantaged students who are poor readers.

43. Johnson, Louise Henrietta. Elementary School Geometry: A Study of Achievement on Selected Objectives of Geometry of Mexican American and Anglo American Second Grade Children. University of Northern Colorado, 1971. 190p. 72-3273.

The primary objective of this study was to develop a unit for Anglo American and disadvantaged Mexican American students in the second grade on selected topological and geometrical concepts. Three specific research questions posed in the study were:

1. To what extent can disadvantaged Mexican American second grade children attain objectives related to selected geometric concepts?

2. Can Anglo American and disadvantaged Mexican American second grade children attain the objectives related to the selected geometric concepts equally well?

3. What is the relationship between reading and arithmetic achievement and geometry achievement of the disadvantaged Mexican American and the Anglo American second grade child?

The subjects of this study were ninety-nine Anglo American and disadvantaged Mexican American second grade children in four classrooms in two elementary schools in Greeley, Colorado. The data gathered on these subjects were Reading and Arithmetic Test scores on the Metropolitan Achievement Test and pretest and posttest scores on an investigator-constructed test on topological and geometrical concepts.

A three week unit, developed by the investigator, covered content including: point, curve, line segment, closed curve, simple curve; continuous transformations; Euclidean transformations; and nets of solids. This unit was taught to the subjects in April, 1971.

In an endeavor to answer the first of the three questions posed for the study, the scores obtained by the Mexican American children on the post-test and on subtests were analyzed. Multiple linear regression was the statistical technique employed to investigate the data pertinent to the remaining two questions. Six hypotheses were tested in an attempt to explore the contribution of individual and proper subsets of eleven predictor variables in the prediction of scores on the criterion posttest. The 5 per cent level of significance was used.

H_1: Knowledge of the eleven predictor variables does provide efficient prediction of achievement on the posttest.

H_2: Knowledge of the interaction of the scores on the Arithmetic Test on the Metropolitan Achievement Test and the student's ethnic membership does not make a contribution to the prediction of achievement on the posttest.

H_3: There is a relation between the student's score on the Reading Test on the Metropolitan Achievement Test and his performance on the posttest.

H_4: Knowledge of the teacher in the classroom does not make a contribution to the prediction of achievement on the posttest.

H_5: Knowledge of a student's score on the Arithmetic Test of the Metropolitan Achievement Test does not make a contribution to the prediction of achievement on the posttest.

H_6: Knowledge of a student's ethnic membership does not make a contribution to the prediction of achievement on the posttest.

Findings and Conclusions: Mexican American second grade students can achieve objectives related to selected topics in typology and geometry. The scores on the posttest and on the subtests on topics relating to points, curves, line segments, closed curves, simple curves, Euclidean transformations and net of solids indicated that the objectives related to these topics could be attained by pupils of this age level.

Hypotheses H_1, H_2, H_4, and H_6 were not rejected. Thus, there was no significance attached to the teacher in the classroom or the ethnic membership insofar as achievement of objectives in geometry was concerned.

Hypothesis H_5 was rejected. Hence, there was a relation between the student's score on the Arithmetic Test and his attainment of objectives related to geometry.

Hypothesis H_3 was rejected. Thus, the Reading Test score was not a predictor of achievement of objectives in geometry.

44. Kamins, Martin P. An Exploratory Study of the Effect of Familiar Language on the Ability of Black Children to Achieve Success with the Solving of Word Problems. Wayne State University, 1971. 116p. Adviser: Dr. Charlotte Junge. 71-29,754.

This exploratory study was designed to determine if the appearance of familiar settings, things, people and subjects in the language of word problems would affect the success of black children from a lower socio-economic environment to solve word problems.

The study attempted to answer the following questions:

(1) Will children be more successful in solving word problems written in familiar language than in solving similar problems from the textbook?

(2) Will there be a general difference in the success of girls and boys in solving word problems:

a. from the textbook?
b. developed by children?

(3) Does the arithmetical operation involved in solving word problems affect the child's success?

(4) Are two-step problems more difficult than one-step problems?

(5) To what extent is computation a contributing factor in solving word problems?

Ten word problems were chosen from the third, fourth and fifth grade textbooks of the arithmetic series in use in the school. Only the set of whole numbers and the four basic operations of arithmetic were used.

A group of sixth grade boys and girls were used to compose word problems based primarily on their interests.

Three distinct learning activities were tested, including textbook problems, childrens' problems and straight computation. All three activities involved the same mathematics. The entire fifth grade at the particular school in which the study was held, were used as the sample. Of forty children who began the study, thirty-two children (seventeen girls and fifteen boys) completed the study. 25% or eight children were involved in posttest interviews to provide insight into their thought processes.

Results of the test, interviews with participating children and comparative scores on the California Test of Mental Maturity and the Iowa Test of Basic Skills show that although there was a definite preference for the childrens' versions of the problems, there was no significant difference in success in solving the childrens' problems over the textbook problems. Reading ability of the children was by far a more important determinant of success than was familiarity of language.

The girls in the group showed greater ability in general than did the boys in every area of problem solving. There was very little difference, however, in the preferences of girls and boys as to interest. Boys did show a positive affect toward the topic of the problem where reading was not a major problem.

Two-step problems provide the greatest difficulty for both girls and boys. The operations of addition and subtraction were less difficult than multiplication and division. The children did better on the computation than on either of the word problem tests. Lack of real comprehension of the uses of division and multiplication was evident.

In general, it was felt by the author of the study that if the familiarity of language is to be considered an important factor it will be apparent only if the reading and computational skills necessary for success are also present.

45. Savells, Jerald Owens. A Sociological Analysis of the Relationship Between the Home Environment and Achievement in Mathematics Among a Select Sample of Culturally Disadvantaged Students. The Louisiana State University and Agricultural and Mechanical College, 1971. 316p. Adviser: Professor Quentin Jenkins. 71-20,619.

The research for this dissertation began as part of a continuing program of the Southwest Educational Development Laboratory (serving both Texas and Louisiana), aimed at the improvement of instruction for the culturally disadvantaged child, especially in the field of mathematics. It was particularly desirable to delineate and measure specific environmental variables operative in the "home" which might contribute to the scholastic achievement of the children who live there. The following are some of the independent variables selected for investigation: mother's education, mother's occupation, mother's evaluation of the local school system, stress on achievement score, independence training, mother's involvement in her child's education, mother's emphasis upon "mathematics learning" in the home, and income level.

Twelve schools were selected in East Baton Rouge Parish, Louisiana, in September, 1968, to represent low-income areas. Both Negroes and whites were included since the problems with which this investigation was concerned were not limited to only one race. In essence, there were three categories for classifying the schools racially: all Negro, all white, and racially-mixed -- for the few schools where integration had begun.

The grades included in this study were the second, fourth, and seventh grades. These grades were not all found in the same schools; consequently, it became necessary to select an elementary school and a junior high school in each of the previously mentioned racial categories. There were four classes from each of these six schools selected, or twenty-four classes.

In order to provide for some comparison of the performance of the students in the "experimental" schools--those utilizing new and specially developed curriculum materials in mathematics--each school was paired with another school in the same category and the same number of teachers and classes were included. These schools, labeled as the "control schools, were to utilize the regular instructional materials in mathematics.

In each of the forty-eight classes, standardized testing procedures appropriate to each grade level were used to measure each child's performance in mathematics. These tests were administered both at the beginning and the end of the 1968-1969 school year in order to obtain a longitudinal measure of the student's improvement in mathematics. The level of "gain" in these scores represented the dependent variable for this analysis.

Ten students were selected randomly from each of the classes involved, and their mothers (or female guardians) were interviewed to investigate the potential relatedness between the "educational environment" within the home and the child's academic achievement in mathematics. Statistical measures of association were used to determine if any significant relationship did exist.

A least-squares analysis of variance was selcted to test the research hypotheses in this analytical design. The fundamental logic of this procedure was based upon the presence of unequal subclass numbers in the data collected. With regards to the F values reported from this analysis, no statistically significant relationship was found between any of the aforementioned independent variables and the dependent variable.

The results of this research provide insight on the stated objectives, even though conclusive positions on some of them may not be possible. These results do not mean that a relationship never exists between the variables being considered. Rather they suggest that the present approach detected far too much variability in the achievement scores in mathematics (the dependent variable) to be able to make any definite statements linking a partnership between specific "educational experiences" in the home as they possibly relate to performance in mathematics. In essence, the mothers of the "high" and "low" gainers in mathematics really showed no significant difference with regards to the previously mentioned independent variables.

Science

46. Hamilton, Nancy Barnett. The Scientific Literacy of Seniors in Urban, Suburban, and Rural High Schools in Kentucky. The Ohio State University, 1965. 144p. Adviser: Professor John S. Richardson. 65-13,238.

The purpose of this investigation was to make a comparative study of the scientific literacy of seniors from urban, suburban, and rural high schools in Kentucky, Scientific literacy was based upon (1) ability to read and interpret scientific literature for the layman; (2) a positive attitude toward science; (3) an understanding of the scientific enterprise, the work of the scientist, and the methods and aims of science; and (4) a measure of scientific achievement.

Six hypotheses were tested: Hypothesis I: Scientific literacy depends upon mental ability. Hypothesis II: Students from rural areas are as scientifically literate as those from urban and suburban areas. Hypothesis III: There is a relationship between the number of science courses completed in high school and scientific literacy. Hypothesis IV: Environment contributes to scientific literacy. Hypothesis V: High school senior boys are more scientifically literate than high school senior girls. Hypothesis VI: The size of the graduating class is a contributing factor to scientific literacy.

A total of 471 seniors from the 1964 graduating class participated in the study. Five urban, five suburban, and five rural schools were involved.

The instruments for gathering data were (1) a personal data sheet; (2) The Iowa Tests of Educational Development, Test 6, Form X-3S, Interpretation--Natural Sciences; (3) Sequential Tests of Educational Progress, Science Form 2A; (4) Test on Understanding Science, Form W; (5) Otis Quick-Scoring Mental Ability Tests: New Edition, Gamma Test: Form Em; and (6) Personal Inventory on Science.

Scientific literacy as measured by the three standardized tests and the Science Inventory was considered as a dependent variable in an analysis of covariance model against the independent variables: (1) sex, (2) type of school, (3) socioeconomic status of parent, (4) number of science courses, (5) mental ability, and (6) size of graduating class. "Regression" took into account three variables: (1) number of science courses, (2) mental ability, and (3) size of the senior class; however, the table of means was not adjusted for regression.

On all four test scores used as dependent variables in determining scientific literacy, regression seemed to be significant. Results of "t" tests were significant at the 1 per cent level for the number of science courses and high mental ability. The size of the graduating class was a significant variable on the Test on Understanding Science. F values seemed to show sex and the socioeconomic status of parents to be significant variables on the ITED test and the STEP test.

On the basis of the results obtained from the statistical analysis the following conclusions seem to be warranted: (1) Scientific literacy depends upon mental ability. (2) No firm conclusions can be drawn relative to the scientific literacy of students from rural areas and those from suburban and urban areas. (3) There is a positive relationship between the number of science courses completed and scientific literacy. (4) Environment contributes to scientific literacy. (5) High school senior boys are not more scientifically literate than high school senior girls. (6) The size of the graduating class is not a contributing factor to scientific literacy.

47. Morris, Melvyn. Implementation and Evaluation of a Science Program for Rural Educationally Disadvantaged Junior High School Students. The University of Florida, 1969. 233p. Adviser: Dr. N.E. Bingham. 70-14,907.

This study was undertaken to determine the feasibility of developing, within one school year, a science program for rural, educationally disadvantaged junior high school students. This was a quasi-experimental study using two different rural junior high schools, one as an experimental school and one as a control school.

The program to be developed had as its bases student involvement in laboratory activities and the development of activities which were relevant to the experimental background of the students and appropriate to their level of cognitive maturity. All of the activities were to be written by the teachers with the assistance of this investigator.

The program was evaluated for its ability to: (1) enhance the students' self-concept, (2) increase the students' facility with certain process skills, (3) increase the students' potential for subsequent school achievement, (4) cause the students to develop positive attitudes toward the discipline of science, (5) cause the students to develop positive attitudes toward their science teacher, (6) cause the students to like science as a school subject, and (7) increase the students' participation in voluntary science activities.

(Note:

Pages 196-205, "Lawrence Lowrey Projective Test of Attitudes" not microfilmed at request of author. Available for consultation at University of Florida Library.

48. Altman, Irvin Harold. Teacher-Student Interaction in Inner-City and Advantaged Classes Using the Science Curriculum Improvement Study. University of California, Los Angeles, 1970. 295p. Adviser: Professor Cornelius J. Troost. 70-19,822.

Determination of the suitability of "new" science curriculum programs such as the Science Curriculum Improvement Study (SCIS) for inner-city as well as advantaged students has rarely been made through studies based on systematic observation under actual field conditions. An accurate description of what actually took place in diverse elementary classrooms would involve the identification, classification, and analyses of the variables associated with teacher-student interaction.

The major purposes of the study were to accomplish the following:

1. Develop a science observation system to identify the variables associated with the teaching of SCIS to inner-city and advantaged students.

2. Classify these variables according to amount and relative frequency of time they occurred in both inner-city and advantaged classrooms.

3. Analyze the relationships between variables to determine if each socioeconomic area exhibited patterns consistent with the SCIS model of recommended behaviors.

Procedures included the selection of classes from grades three and four in inner-city and advantaged areas. Thirteen of these sample units were from inner-city and fifteen were from suburbia. Each sample unit was observed twice as the first two lessons from the SCIS Life Cycles unit were taught. During each observation the investigator used an audiotape recorder and also took notes to record nonverbal activities. Immediately after observation the teacher-student interaction was coded according to a multidimensional science observation system.

This system had been especially constructed to meet the purposes of the study. It was derived through modification of a science observation instrument originally developed by Fischler and Zimmer. Added to it were concepts and procedures by authorities as Karplus and Thier, Flanders, Aschner and Gallagher, Bellack, and Jackson. It recorded the dimensions of communication method, classroom procedure, cognitive behavior, and affective behavior. Its reliability, as determined through use of a measure of between-observer and within-observer agreement, was considered as sufficient to justify confidence.

Data obtained from the observation system were treated by a program developed for an IBM 360 Model 91 computer to indicate frequencies, proportions, relationships, and ratios for the system's dimensions, subdimensions, and categories.

A subsidiary study examined selected teacher-student behaviors in inner-city and advantaged areas scoring high and low on a criterion measure of student achievement. Selected null hypotheses were rejected at a .05 level of significance according to the results of a t-test.

Among the major findings were the following:

1. Advantaged as compared to inner-city students engaged in more than twice as much self-initiated talk.

2. Advantaged classes as compared to inner city classes were exposed to more verbal cognitive interaction and less verbal procedural interaction.

3. Both inner-city and advantaged teachers asked twice as many recall facts and see

relationships questions as observation, hypothesis, and test hypothesis questions.

4. In both inner-city and advantaged areas lab work was a dominant part of the lesson.

5. In a comparison of high achieving and low achieving classes within each socio-economic area, high achieving classes showed a great similarity to the SCIS-recommended model. The high achieving advantaged group showed the greatest similarity.

49. Bryant, Napoleon, Jr. *The Effects of Performance Objectives on the Achievement Level of Selected Eighth-Grade Science Pupils in Four Predominantly Black Inner City Schools.* Indiana University, 1970. 100p. Adviser: Hans O. Andersen. 71-11,368.

The purpose of the study was to determine the effects of expressing course objectives in specific behavioral terms (performance objectives) on the achievement level of low achieving eighth-grade science pupils in four predominantly black inner city schools in Cincinnati, Ohio. Six teachers participated in the study and each teacher taught two classes. Two hundred and ten pupils were involved in the study. Three teachers were trained to develop and use performance objectives as an instructional technique. Pedagogical techniques ordinarily used in instruction by the other three teachers were not altered. A criterion test was developed by both trained and untrained teachers and was administered to the pupils at the end of the study.

Experimental groups consisted of (1) pupils and teachers who were given the objectives, (2) teachers who were given the objectives, (3) pupils who were given the objectives, and (4) pupils and teachers neither of whom were given the objectives. The independent variables were Treatments (given or not given the objectives), Sex of the pupil, Trained or untrained teacher, and Individual teachers. Performance on the Criterion measure was the dependent variable.

Data from the study were analyzed as follows: (1) A one way analysis of variance was used to determine homogeneity of classes on the covariate mean (I.Q.); (2) A 2 X 2 X 2 X 3 analysis of covariance for a randomized group design was used to determine significance of treatments. The intelligence quotient score of each pupil was used as the covariate; (3) Duncan's New Multiple Range Test was used to compare performance mean scores among experimental groups; and (4) A subjective evaluation of statements of attitudes and opinions from both teachers and pupils was used.

There were no significant differences among classes on the covariate class means (I.Q.) or in performance on the criterion test which could be attributed to treatments (given or not given the objectives) or to the sex of the individual pupil. It was concluded (1) that differences in covariate means should not be considered an important factor influencing class performance on the criterion measure, (2) that the use of performance objectives as an instructional technique and the traditional methods of teaching may be equally effective, and (3) that the sex of the pupils had little influence on the level of achievement they attained. There were significant effects on pupils' achievement attributable to the training of the teacher ($p < .05$) and to differences in individual teachers ($p < .001$). It was concluded (1) that pupils taught by teachers trained in the use and development of performance objectives performed better on the criterion measure, and (2) that the achievement level a pupil attains may be greatly influenced by the pedagogical techniques the teacher uses during instruction. There was a highly significant interaction effect ($p < .001$) between Groups of teachers and Individual teachers. It was concluded that the interaction was a function of the achievement of the pupils of one of the trained teachers. The pupils of this teacher who were given the objectives did very poorly on the achievement measure. However, the class which did not receive the objectives did relatively well when compared to the achievement of the other classes. Providing pupils with the objectives improved (1) their understanding of what was expected of them and (2) their ability to work independently and/or in small groups. Teachers who used performance objectives were more aware of spontaneous developments that occurred in the classroom and exhibited greater confidence in their ability to design effective instructional programs and materials.

The teacher remains an important factor in determining the success or failure of pedagogical techniques used in instructing the low achiever. The use of performance objectives appeared to facilitate the presentation of course content in small manageable pieces thus providing greater opportunities for the low achiever to experience success in the classroom. It is recommended that further research be conducted whereby (1) more effective techniques for teaching the low achiever are developed and implemented, (2) those qualities possessed by effective teachers of low achievers can be identified and incorporated in the training of all teachers.

50. Clarke, Cleveland Oliver. A Determination of Commonalities of Science Interests Held by Intermediate Grade Children in Inner-City, Suburban and Rural Schools. Boston University School of Education, 1971. 185p. Adviser: Pearl A. Nelson. 71-26,683.

This study was designed to determine the effect of community of residence on the science interests, science attitudes, and science achievement of children from grades four, five, and six.

The population sampled consisted of children from two urban, two suburban, and two rural communities in Massachusetts. Each community supplied one elementary school from which two classes from each grade level were randomly selected to participate in the study. Of the 776 children involved in the study, 256 were urban residents, 300 were suburban, and 220 were rural.

The investigation was conducted in the Fall of 1969. Three measuring instruments were administered. These included: (1) a Science Interest Checklist constructed by the investigator and administered to determine the interest area preferences of the testees, (2) a Semantic Differential to determine attitudes toward science, social studies, mathematics, and English, (3) the Metropolitan Science Achievement Test, Form AM, to determine achievement in science.

Intelligence quotient scores of children and information relative to the occupations of their parents were obtained from cumulative record files. Social class status of parents and children were determined from these occupational listings using the occupational prestige scheme developed by Hodge, Seigel, and Rossi.

The data collected on the Science Interest Checklist were analyzed by employing the chi-square test. Analysis of variance was used to analyze the achievement and attitude scores. In all cases, probability greater than .05 was considered non-significant.

The investigation indicated the following:

1. That the biological sciences makes up the area of greatest interest for children of grades four, five, and six, followed by that of the earth sciences and physical sciences, respectively.

2. That interest in particular areas of science did not appear to be a function of whether the children were urban, suburban, and rural residents.

3. That neither grade level, social class status, nor intelligence quotient had any significant influence on the science interests of intermediate grade children.

4. That interests in particular areas of science were found to be significantly related to sex. For example, girls appeared to be strongly interested in the biological sciences, while boys leaned toward the earth and physical sciences.

5. That relative to community of residence, interest in particular areas of science was significantly related to sex differences:

   a. Urban boys were most interested in the physical sciences.
   b. Urban girls were equally interested in biological and earth sciences but showed very little interest in the physical sciences.
   c. Suburban boys were most interested in the physical sciences.
   d. Suburban girls were most interested in the biological sciences.
   e. Rural boys did not show any particular interest in any of the three science areas.
   f. Rural girls were most interested in the biological sciences.

6. That in terms of attitudes toward science, boys showed a more favorable attitude than girls.

7. That on the basis of achievement, suburban children were the highest achievers, followed by the rural and urban children, respectively.

The findings based on the research seem to indicate that intermediate grade children do have specific interests or area preferences in science and that those interests are the same regardless of whether the children come from urban, suburban, or rural communities.

Since sex differences were found to be particularly related to science interests, the question may be raised as to whether many current science programs which do not recognize differences in science interests should be examined as to their suitability for boys and girls.

It is interesting to note that in only one of the newer science programs does an adequate opportunity exist for elementary grade children to explore fully the biological sciences as well as the physical and earth sciences.

51. Huff, Phyllis Ester. The Effects of the Use of Activities of Science--A Process Approach on the Oral Communication Skills of Disadvantaged Kindergarten Children. The Ohio State University, 1971. 153p. Adviser: Professor Marlin L. Languis. 71-27,486.

The study investigated the effects of participation in the activities of Science - A Process Approach on the oral communication skills of disadvantaged kindergarten children enrolled in four regularly scheduled kindergarten classes, two morning and two afternoon, were randomly assigned to the experimental treatment. The remaining two were designated as control groups. The subjects were administered a pretest, given twelve weeks of the treatment, and administered a posttest. The test used was the Test of Oral Communication Skills (TOCS), developed by the investigator. The TOCS measures the transmitting skills, or speaking skills, of language output and expressiveness, vocabulary, general meaning and ideas, sentence structure, defining words, and average length of sentences. The total receiving skills, or listening skills, of listening behavior and listening comprehension are also measured.

The treatment consisted of twenty-two lessons, a through k, in the activities of Part A, Science - A Process Approach for the experimental groups and twenty-two lessons from a recommended kindergarten science resource book, Springboards to Science, for the control groups. The investigator taught all lessons for experimental and control groups.

The analyses of the data revealed that there were significant differences at the .01 level favoring the experimental groups on total oral transmitting skills and on the following subtest skills: language output and expressiveness, vocabulary, and general meaning and ideas.

There were no significant differences at the .01 level between the experimental and the control groups on the oral transmitting subtests: sentence structure, defining words, and average length of sentences nor on the total oral receiving skills and subtest skills: listening behavior and listening comprehension. In all cases, however, the posttest TOCS total and sub-test performance of the experimental groups exceeded performance of the control groups.

Five independent variables: I.Q., sex, chronological age, pre-kindergarten educational background, and morning or afternoon kindergarten class membership, were examined to determine their predictive value on the pretest scores of oral communication skills.

The most useful predictor of performance on the Test of Oral Communication Skills is chronological age. Chronological age accounted for 89 percent of the total variance. Chronological age plus I.Q. and sex, in favor of females, accounted for more than 90 percent of the variance on the test.

The results of this study indicate that participation in the activities of Science - A Process Approach does enhance the development of oral communication skills in disadvantaged kindergarten children, especially in the area of the oral transmitting skills.

52. Wheeler, Otis V. The Relative Effectiveness of Two Different Mathematics and Science Programs Used with Disadvantaged and Non-Disadvantaged First Grade Children. University of Missouri - Columbia, 1971. 119p. Adviser: Dr. James L. Craigmile. 72-10,566.

The purpose of this study was to determine the relative effectiveness of two different mathematics and science programs used with disadvantaged and non-disadvantaged first grade children. More specifically, two groups of children were classified as disadvantaged and two groups of children were classified as non-disadvantaged. One of the disadvantaged groups and one of the non-disadvantaged groups studied a process oriented, coordinated mathematics and science program which used subject content as a means to an end but with the processes of inquiry as the main focus. The other two groups of children, one disadvantaged and the one non-disadvantaged, studied a content oriented, separate mathematics and science textbook program which used subject content as an end in itself with the processes of inquiry being incidental.

All of the first grade, self-contained classrooms from each of two Title I, or inner city, elementary public schools were used in this study. The attendance areas for the two schools were adjacent and did not vary much socio-economically. Thirty-one students used the process oriented, coordinated program and fifty-one students used the content oriented, separate textbook program for a total sample of eighty-two students.

The data for the study were obtained by means of pretests given in October and posttests given in May. The instruments used were: tests seven, fourteen, twenty-one, and twenty-eight from the Diagnostic Tests to accompany Modern School Mathematics, Structure and Use, as a measure of modern mathematics concepts; The Arithmetic Concepts and Skills section of the Metropolitan Achievement Tests, Primary I Battery, as a measure of traditional mathematics concepts; and the Science Process Instrument, Experimental Edition, to assess student mastery of science processes. The Initial Reading Survey Test, Form A was also given to measure reading ability which was used in conjunction with the various pretests as control variables.

Two criteria were used to determine disadvantagement, receiving Aid to Families of Dependent Children or the main breadwinner having an occupation rating of six or below on Warner's Revised Scale for Rating Occupation.

A quasi-experimental Nonequivalent Control Group Design was used for the study. The data were analyzed by an analysis of covariance for one analysis of variance variable with multiple covariates and unequal treatment group sizes.

In all of the twelve covariate analyses to test each of the possible combinations of groups, no analysis resulted in a statistically significant difference in group means.

On the basis of the data obtained and with specific reference to the population sampled and the limitations set forth, the main conclusion was that the process oriented, coordinated mathematics and science program will be equally as effective in teaching modern mathematics concepts, traditional mathematics concepts, and science processes to both disadvantaged and non-disadvantaged first grade children, as separate content oriented mathematics and science textbook programs.

Art and Creativity

53. Rennels, Max Raymond. The Effects of Instructional Methodology in Art Education Upon Achievement on Spatial Tasks by Disadvantaged Negro Youths. Indiana University, 1968. 117p. Adviser: Dr. Guy Hubbard. 69-6765.

Due to the disadvantaged Negro's affinity for concrete and motoric experiences, many compensatory educational programs are using art as a means of facilitating the development of basic skills. The art experiences that are being given to the disadvantaged, however, are usually similar to the art experiences found in typical schools. Choices of curricula and methods are made without consideration for the child's ethnic origin, and whether he is disadvantaged or not. The evaluational question as to the success or failure of these art educational experiences being employed in these programs has not been tested. There exists, therefore, a need to identify and evaluate under control conditions a specific instructional method of art education that, in its approach toward the disadvantaged Negro child, will be based upon his interest in concrete or motoric experiences, will help him acquire basic skills, and will assist him in discovering and developing those sensory experiences which will hopefully broaden hi environment.

The subjects were eighth-grade Negro children attending DuValle Junior High School in Louisville, Kentucky. They were all from a Federal low-rent housing development where incomes were at or below $3,000 per annum. The pre-existing conditions of age, sex, I.Q., and reading level were constant for the initial 85 subjects involved in the investigation.

The major part of this investigation was the evaluation of the effectiveness of two opposing instructional methods in the teaching of spatial visualization to a group of disadvantaged eighth-grade Negro students. The two methods of instruction, "analytic" and "synthetic," were developed in relation to the characteristics of the perceptual styles of field-dependence and field-independence. The "analytic" method and field-independence are alike in that (1) they share the characteristics of awareness for detail by analysis of the total phenomena, (2) they are concerned with the theoretical and abstract (3) they are concerned with the complexity of sequence, and (4) they are developed around the self. The "synthetic" method may be compared to field-dependence in that (1) both are concerned with motoric, concrete, and short-run situations, (2) both are concerned with conformity and each sequence being a complete experience within itself, and (3) both are other-directed, and global in scope.

Two parallel intact groups enrolled in art classes were selected for exposure to the experimental treatments of "analytic" or "synthetic" method. A third group similar to the two chosen for treatment was selected for a control basis and received "no art" instruction. Three sections dealing with space from the Primary Mental Abilities Test were administered to all subjects on a pre-post test basis. A five part spatial problems test, constructed by the investigator, was also administered to all subjects on a pre-post test basis. The Embedded Figures Test was used for identification of the field-dependence or the field-independence of the subjects.

The two experimental groups were each exposed to one or the other of the two instructional methods for a duration of five weeks. The control group attended a music class during this five-week period.

This experiment used a three-dimensional multifactor design with the dependent variable (treatment) representing the methods described as "analytic" method, "synthetic" method, and a control group with "no art" instruction. The two independent variables used in the design were the sex of the subjects and the styles of perception identified as field-dependent, mid-dependent, and field-independent. The scores on the pre-test battery and on the post-test battery were examined by least-square analysis of covarience.

Findings and Conclusions: From this investigation of the disadvantaged Negro child's achievement on spatial tasks, the "analytic" method was found to be superior to the "synthetic" method but not at a level of statistical significance for all of the ten tasks of spatial tests. The "analytic" method did, however, account for the largest gain scores from pre- to post-test sessions. Further, it was concluded that the "synthetic" instructional method, considered to be the most conventional and widely used, is only slightly more effective than "no instruction" and on spatial tasks it caused negative directions in scores to occur.

Another conclusion which became apparent when examining what effect the variable of perceptual styles and sex had upon the performance of the disadvantaged Negro child was that the perceptual styles were significantly related to the subjects' achievement scores on the spatial tasks tested in this investigation. Though the field-independent subjects made the highest initial scores on the pre-test the mid-dependent subjects made the largest gain scores from the pre- to post-tests. Sex was also found to be significantly related to achievement scores on four of the ten pre-post tests with the male subjects making the highest gain scores.

54. Dent, Paula Ann. Creativity in Inner-City Children, in Relation to Aptitude, Achievement, and Background. Wayne State University, 1969. 327p. Adviser: Dr. Wilhelm Reitz. 70-19,052.

This study was concerned with the assessment of creativity in the inner-city child, and an examination of the interrelationships found between creativity, achievement, aptitude and selected background variables. The outcomes of the study were focused on the definition of profile types for creativity in inner-city children, utilizing a new technique in profile analysis called Shape-Type Criteria of Profile Analysis.

Data were collected from a random sample (N=146) of inner-city junior high school youth. The major vehicle of the study was the Torrance Tests of Creative Thinking. Achievement data were obtained from the Iowa Tests of Basic Skills and the Stanford Achievement Test. The aptitude data were obtained from the California Test of Mental Maturity. Selected background variables, obtained from pupil, counselor and parental questionnaires and reaction forms, were those of pupil attitude toward school, counselor concept of pupil, elementary grades in language and mathematics, number of elementary schools attended, family size, position in family, economic status of family, employment of parents and education of parents.

Analysis was accomplished in several steps: (1) Means and standard deviations were computed on all variables for the total sample, and for boys only and girls only. (2) Multiple regression analysis with acretion was applied to the data, with each of the thirteen variables representing the achievement and aptitude measures treated as the dependent variables, and the measures of creativity treated as the independent variables for each of the thirteen analyses. (3) Factor analysis of variables, utilizing Hotelling's Principal Components technique with a varimax rotation was applied. Factors produced by rotation were examined to determine the number of significant factors extracted, and these factors were described. (4) The final step in analysis was the application of Shape-Type Profile Analysis. Utilizing the means and standard deviations previously computed, data were converted to standard scores. In this technique, the mean of profile elements defines elevation, the standard deviation defines scatter, and measures of skewness and kurtosis define profile shape. This technique clustered profiles into groups with similar elevation, scatter, skewness and kurtosis.

The findings of the study were as follows:

1. The subjects of the study were found to be typical of the educationally disadvantaged student population.

2. The seven measures of creativity accounted for a percentage of variance ranging from .03 to .20 in the standardized achievement and aptitude tests used in the multiple regression analysis.

3. Factor analysis produced general factors of Creativity-Figural and Creativity-Verbal for the total sample, for boys only and for girls only.

4. Students in the sample can be clustered into distinct and different profile types based upon complete data records and upon measures of creativity using the Sahpe-Type Criteria of Profile Analysis.

Twenty-five distinct profile types were found on the basis of complete data records. In order to ascertain that these profiles were indeed distinct and yet different, three profile types were selected at random, and primary data for these profiles were inspected. Within the profile types, data were strikingly similar. Between profile types, data were different.

Twenty-two profile types were clustered on the basis of the measures of creativity. Again, primary data were inspected for three randomly selected profile types, with the same results as for the complete data records.

5. Creativity, as measured by the Torrance Tests of Creative Thinking, is found in the sample in varying degrees. When contrasted with a sample of the same age and grade grouping from a large California system, the sample of the study ranged slightly below the approximated mean of the California sample on measures of verbal creativity, and were at or above the California approximated mean on measures of figural creativity.

6. Student background data did not appear to be a factor in measures of creativity for this sample.

55. Walker, Perry Crane. A Study of Creativity Among Mexican School Children. University of Georgia, 1969. 227p. Adviser: E. Paul Torrance. 70-10,243.

The present study investigated creativity among Mexican school children. The Torrance Tests of Creative Thinking (Figural Form A) were translated and administered to subjects in the third through sixth grades, in four selected subcultures (rural poor, urban poor, urban middle, and urban privileged). It was hypothesized that grade level, subculture, and sex would be significant variables with respect to the dependent variables of figural fluency, flexibility, originality, and elaboration.

Support for all hypotheses was found. While grade level did not contribute significantly to fluency, flexibility, or originality; a highly significant (p .001) effect was found on elaboration. Subculture was found to be highly significant (p .001) in relationship to flexibility, originality, and elaboration with a significant (p .05) relationship also existing between subculture and fluency. Sex was found to be highly significant (p .001) with relationship to figural fluency with the advantage being in favor of girls. Girls also scored higher, though not significantly, on flexibility while boys scored slightly higher than girls on the measures of originality and elaboration.

Cross-cultural comparisons indicated that Mexicans are operating at a comparatively high level when compared with the cultures studied by Torrance (1967).

[Appendix A: "Thinking Creatively With Pictures (Spanish Form A)", following page 183, not microfilmed at request of author. Available for consultation at University of Georgia Library.]

56. Bressi, Elisabeth. A Study of the Painting of Six Educationally Disadvantaged Children. Columbia University, 1970. 451p. Adviser: Professor Mildred L. Fairchild. 70-26,766.

The study of the painting of six educationally disadvantaged children had a twofild purpose: (1) to identify the characteristics of the painting and the art education needs of the subjects, and (2) to demonstrate how the method of systematic observation can be used to identify those characteristics and needs.

Children selected as subjects for the study were three boys and three girls (eight and nine years of age) who attended a public school in the New York metropolitan area and whose scores on standardized reading achievement tests were in the lowest quartile for their grade, who were rated by their teachers as achieving below grade level and who had a history of school learning problems which may be attributed to environmental conditions.

The subjects were observed in six painting sessions within a two-month period. Four trained observers used the specimen record technique to record the observations. The objective during the painting sessions was to obtain voluntary paintings from the children and to record all that the children said and did in connection with the execution of the paintings. (Voluntary paintings are those paintings which a child makes using his own subject matter and mode of expression when painting is the activity scheduled for the group.)

Three elementary art education experts judged the children's paintings for aesthetic quaity using four criteria: suitability of design elements, ordering of design elements, originality, and spontaneity. The written records of the subjects' painting behavior were coded, using ten categories devised by the researcher. The categories were: (1) attentiveness and concentration; (2) readiness to select content for painting; (3) child's evaluation of his painting; (4) response to motivation by the teacher; (5) response to instruction and direction by the teacher; (6) response to evaluation by the teacher; response to evaluation by other children; (8) verbal knowledge of media and/or technique; (9) nonverbal knowledge of media and/or technique; (10) interest in color mixing. The researcher used the technique of descriptive analysis in reviewing the written records of the observations in conjunction with the subjects' paintings to obtain further insight into the children's painting characteristics and art education needs.

The results of the study showed that scores for aesthetic quality of the subjects' paintings ranged from moderate to moderately low. There were more differences among the mean scores of the paintings by the boys than by the girls. Differences were also noted in the painting behaviors of the subjects along the dimensions used in coding the written records. Although these differences were noted, certain similarities were held by two or more subjects. These were: the infrequent use of the human figure in a self-related way; an interest in designs; frequent negative self-evaluations and a lack of self-confidence in painting; a low level of interaction with the art teacher; limited graphic vocabularies; and an interest in the materials used in painting. There was also evidence that their verbalizations showed familiarity with art media and processes. Each child had a unique mode of expression.

Another conclusion drawn from the study was that, although the children showed a low level of interaction with the art teacher, they gave evidence of being able to respond to motivation, instruction, and evaluation. Also, each child showed an overall consistency in his painting characteristics, although small changes were noted which may be attributed to growth or changes in the situation.

A major conclusion drawn from the study was that certain art education needs were held in common by several subjects. These were: the need for more varied firsthand experiences to serve as sources for content; the need for increased self-confidence in the ability to paint; the need for appropriate motivation, instruction, and evaluation by the art teacher; and the need to develop a meaningful schema for the human figure.

Some of the recommendations which were developed from the conclusions of the study included recommendations for scheduling small groups of educationally disadvantaged children and experimentation with the length of the art period because of the differences in children's attention spans and paces of working.

57. Stevens, Wilson Wayne. Team Teaching a General Fine Arts Course to the Culturally Disadvantaged at the Junior High School Level. The University of Oklahoma, 1970. 417p. Adviser: Margaret Smith Haynes. 71-17,056.

For many years there has been dissatisfaction among educators concerning the effectiveness of the junior high school fine arts curricula. One of the recent trends, in an attempt to improve the situation, has been toward the allied arts/humanities approach. A great deal of variation exists in this approach at the operational level, and very little systematic research has been done on the problem. A rationale for the related arts approach is only in its incipient stage of development and limited to the efforts of a very few fine arts educators.

This study is from the music specialist's point of view, and it centers around the description and critical evaluation of two innovative team-taught General Fine Arts protrams implemented in different large-city junior high schools, both located in culturally disadvantaged communities. Detailed explanations of administrative structure, curricular content and procedures, and qualifications of the team teachers are outlined.

The history and philosophy of the concept of interrelatedness among the arts are traced from ancient civilizations to modern times by means of selected examples of thought and action. The literature is searched for philosophical, psychological and sociological evidence to support or deny the pedagogical soundness of an integrated arts curriculum. Some aesthetic theories (including Aristotelian catharsis) are examined closely in order to gain broader perspective on the practical problems of aesthetic education. Similarly, a brief survey is made of learning theories; some future educational trends are predicted.

Many questions are raised and numerous ideas for further research emerge as a result of the investigation. Several original paradigms are used to illustrate aesthetic principles and commonality of the arts. Clarification of the terminology related to the study is approached with specificity and precision.

Extensive appendixes are included as a reference source for administrators of fine arts educators who are interested in implementing this approach to aesthetic education. Lists of instructional materials, suggested student activities, and a sample unit of study are provided.

Special attention is given to the academic, social, and aesthetic deficiencies of lower-class children, and suggestions for effective teaching of the arts in an inner-city setting are offered. Criticism of the schools in general (especially regarding their failures in the education of culturally disadvantaged pupils) and some of the fine arts curricula in particular is presented and some remedies proposed.

Although admitting the existence of certain unresolved problems, the researcher concludes that a team-taught combined arts curriculum is valid, motivational, and stimulating to teachers and students alike; that the training of a new kind of educator who specialized in General Fine Arts is needed; and that the proposed curriculum could be easily adapted to the emerging Middle School concept.

58. Twiggs, Leo Franklin. The Effects of Teaching a Method of Art Criticism on the Aesthetic Responses of Culturally Disadvantaged Junior High School Students. University of Georgia, 1970. 206p. Adviser: Professor Edmund B. Feldman. 71-3793.

The purpose of this experimental study was to determine whether disadvantaged Negro junior high school students could be taught to respond to works of art more effectively by employing a method of art criticism or by employing a traditional method of dealing with works of art.

The population of the study consisted of 210 eighth and ninth grade students in two schools located in Orangeburg, South Carolina. The study was designed to employ the use of two experimental groups and one control group at each grade level; 35 students were randomly assigned to each of the groups. One experimental group was taught to use a systematic plan for attending to selected slide reproductions of art works. The other experimental group was taught to use a traditional method entailing studio performance and historical discussion. The Control Group did not receive instructions in either type of procedure.

The total length of the study was eight weeks; the first and last weeks were used for the pretest and posttest, respectively. Instructions for both experimental groups totalled approximately two forty-five minute periods per week. Several of the works shown to both groups depicted Negro subjects.

The instrument used for the pretest and posttest was designed and validated for the purpose of quantifying the individual responses. It employed the use of tape recorded verbal responses to selected art work.

An anlysis of covariance and the Duncan Multiple Range Test were used to analyze the data.

Analysis of the aesthetic response scores for eighth and ninth grade students yielded results that were significant at the .01 level in favor of the Criticism Group. In describing the art work used in the test instrument, there was a significant difference (.01 level) in favor of the Criticism Group, also. There was no significant difference between the descriptive scores of a control group that received training in manipulative art activities and a traditional group, however.

When the two grade levels were combined, no significant difference was found between the aesthetic responses of males and females, but males did significantly better than females in describing the art work used in the test instrument.

The major conclusions of the study were:

1. A method of art criticism can be an effective device for teaching culturally disadvantaged students to look critically and perceptively at works of art.

2. The disadvantaged student is more responsive to art works based on themes and images related to his background and experience in the subculture; when such works are introduced during the initial stages of a study unit employing a method of art criticisn, there can be a successful "branching-out" to include subsequent works whose themes are less relevant to the subculture.

3. The disadvantaged student is more responsive to art works when he is allowed to use his own idiom to talk about, rather than write about, what he sees and feels.

["Artist Jr.," pages 172-175, not microfilmed at request of author. Available for consultation at University of Georgia Library.]

59. Cohen, S. Alan. A Study of the Relationships Among Measurements of Reading, Intelligence and Vision Development, Using a Dynamic Theory of Vision, in Socially Disadvantaged Junior High School Children. Boston University School of Education, 1965. 250p. Adviser: Associate Professor Dr. Thomas E. Culliton, Jr. 66-200.

This study investigated relationships among measurements of reading, intelligence and vision in socially disadvantaged junior high school children of average intelligence. The population was, in general, underachieving, but the generalizations drawn from the hypotheses tested should be applicable as well to middle class junior high school children who are achieving at grade level.

The study consisted of two parts: Part one reported the development and validation of a Developmental Vision Survey (DVS) based on the dynamic theory of vision developed in the study and used by developmental vision specialists trained by the Optometric Extension Program and Gesell Institute of Child Development. Part two reported the investigation of 352 7th and 8th graders' scores on the DVS, Primary Mental Abilities test (PMA), and four reading subtests of the Iowa Tests of Basic Skills (ITBS), Vocabulary (V), Reading (R), Language Usage (L), and Work-Study Skills (W).

Hypotheses attempted to answer three major questions: (1) Can a valid vision survey instrument based on a dynamic theory of vision be developed for subjects of this age? (2) Is poor vision development as measured on the DVS related to reading achievement in the population studied? (3) Do subtest patterns of the PMA indicate type of compensations a subject makes for poor vision development in relation to reading?

In conjunction with representatives of the Optometric Extension Program, a series of developmental vision measurements were tested on the basis of content validity. By process of elimination, the shortest and most reliable tests were distilled from a longer list of tests tried. A final battery of four subtests tapping three levels of vision development, skeletal, visceral and cortical, were compiled. A coefficient of stability of .825 with a *t* of 6.369 was established.

The test was validated and cross validated with clinical evaluations resulting in rank order validation coefficients of .927 and .891 respectively.

The test (DVS) was administered to 352 children controlled for age, grade, socioeconomic level and intelligence. Multiple and partial correlations were computed on IBM 7094 and 1620 among the DVS variables, ITBS Reading subtest, and PMA subtests.

Vision development as measured in this study was not related to reading at a logically significant level for the total population. Females, however, showed relatively high correlations between vision and types of reading (.36 and .41 for various ITBS subtests).

Significantly higher correlations and means for girls among all variables held consistently.

PMA subtest patterns were unable to discriminate among reading levels in relation to vision because of large overlap between the DVS and PMA. Partial and multiple correlations indicated that both tests tapped the same behaviors. This led to the conclusion that developmental vision, as defined by the study, affects school achievement indirectly by affecting intelligence as measured on the PMA. This verifies previous evidence reported by Lyons and Lyons.

Findings from the present study lead to the following questions for further research:

1. Does successful developmental vision training lead to increased intelligence as

measured on the PMA? If so, which PMA factors are most affected? 2. Do socially disadvantaged girls increase their "academic lead" over boys in junior and senior high school? 3. Are socially disadvantaged Puerto Rican children more "reality bound" than Negro and White children? 4. What personality factors discriminate among various levels of reading in relationship to levels of vision development?

60. Downing, Gertrude L. The Effects of Systematic Phonics Instruction on the Reading Achievement of Adolescent Retarded Readers with Problems of Dialect Speech: A Study of the Relative Effectiveness of Systematic Phonics Instruction and Incidental Phonics Instruction on the Improvement in Phonic Knowledge, Word Knowledge and Silent Reading Achievement of Seventh and Eighth Grade Retarded Readers in a Community Characterized by American Negro Dialects. New York University, 1965. 79p. 66-9495.

Thousands of culturally disadvantaged pupils in New York City are reading two or more years below grade level expectancy. These low achievement levels produce a pattern of academic failure which destines the majority of these pupils to lives of economic hardship.

A major problem of these retarded readers is deficiency in word recognition skills. Probably because of limited language fluency and of non-standard pronounciation, great numbers of these children show marked inability to make the fine phonic discriminations necessary for accurate pronunciation of vowels. Standard remedial practice indicates intensive auditory and visual training in phonics for such cases. But with the shortage of reading specialists and the urgency of improving skill in silent reading, the efficacy of such a laborious approach must be questioned.

Accordingly, this study was designed to observe the differential effects of systematic phonics instruction and incidental phonics instruction as an integral part of reading activities on the reading achievement of junior high school retarded readers who speak urban Negro dialects.

The research was conducted in a junior high school in New York City in a lower socio-economic level community whose population is over 90 per cent Negro. The subjects, members of four seventh and four eighth grade classes, were tested initially to determine their non-verbal IQ's and their achievement in phonic knowledge, work knowledge and reading. Subjects included in the statistical study were those who had a reading grade of 5.9 or below and an IQ of 75 to 115. Two reading teachers instructed the classes. One seventh and one eighth grade class working with each of the teachers was assigned to the experimental conditions by the toss of a coin. The remaining groups were controls.

For twelve weeks, the experimental groups received three forty-minute periods each week of developmental phonics instruction and two periods of directed reading activities. The control groups had three periods of instruction in low difficulty materials with only incidental phonics instruction in pertinent vocabulary, plus two periods of the same directed reading activities employed with the experimental groups. At the end of twelve weeks, the 144 subjects being studied were retested in phonic knowledge, word knowledge and reading.

To adjust not only for differences between experimental and control classes but also for intra-group differences, multiple classification analyses of covariance were used to test results.

Systematic phonics instruction was found more effective than incidental instruction in increasing phonic knowledge. Girls achieved higher scores than boys, and there were demonstrable differences in achievement of boys and girls when taught by the two methods. In word knowledge, Grade 8 pupils achieved significantly higher than those in Grade 7. There was no significant difference in achievement in word knowledge between experimental and control groups. In reading achievement, there were no significant differences. All subgroups except one showed greater than double the growth expectancy in reading, irrespective of instructional method.

Since significant gains in phonic knowledge were not accompanied by similar gains in word knowledge and in reading, intensive phonics instruction as employed in this study does not seem to be justified for these subjects. Daily corrective reading instruction by either method resulted in greater than expected gains in reading achievement. Therefore, the findings of this investigation suggest that, until further research indicates more effective methods, daily directed reading instruction with high interest, low difficulty materials is one of the most practical approaches to the improvement of reading ability in these pupils.

61. Felix, Mildred L. Sutton. The Comparison of Two Methods of Instruction on the Spontaneous Speech Habits of Thirty Third-Grade Disadvantaged Pupils of New Orleans, Louisiana. University of Houston, 1969. 116p. 70-8640.

The problem in this study was to compare the effectiveness of two methods of instruction on the spontaneous speech habits of thirty third-grade pupils of New Orleans, Louisiana.

The population for this study was selected from two third-grade classes of a special reading program. The selection was achieved by a method of random number sampling, and the participants were subsequently assigned to two treatment groups--one experimental and one control. Both groups participated in their designated learning program for a period of 120 days.

The experimental group, composed of fifteen subjects, participated in a program of Unified Language Experience Approach and one designated as Teaching English as a Foreign Language. Whereas the control group, composed of fifteen subjects, was exposed to learning tasks centered around the Scott, Foresman Basal Reading series assigned to the third grade. Activities for this group adhered very closely to the teacher's manual for that series.

Both groups used the same classroom and were instructed by the same teacher.

In order to measure and compre the gains acquired by both groups, pre- and post-test application of the Illinois Test of Psycholinguistics Abilities and the Metropolitan Achievement Test were provided.

The null hypotheses of no significant gains in communicative skills for the experimental group, and no significant difference in communicative skills between the control and the experimental groups, were rejected in Auditory Decoding at the .01 level of confidence and in Visual Motor Association at the .05 level of confidence.

The null hypotheses of no significant gains in reading for the experimental group, and no significant difference in reading between the control and experimental groups, were rejected in the area of reading at the .05 level of confidence.

62. Miceli, Frank. The Performance of Culturally Disadvantaged Students on a Cross-Culturally Translated Standardized Reading Test. New York University, 1969. 155p. Adviser: Neil Postman. 70-15,971.

The purpose of this investigation was to create two cross-cultural translations of a standardized reading test, and to determine if culturally disadvantaged students read more effectively when the language on the printed page better reflects the idiom of their own dialect. The standardized reading test used for this study was the Metropolitan Achievement Test, Intermediate Reading Test, Form Bm, Harcourt, Brace & World, Inc., New York.

After the original tests were translated, they were submitted to a jury of nine persons. Three of the members of the jury were linguists, three were reading specialists, and three were professional members of the black community. The jury served a number of purposes. Prior to administering the tests to the subjects, the completed translations were submitted to the jury for approval, comments and recommendations. Any suggestions made by the jury were acted upon by this researcher. After the corrections were made, the revised cross-cultural translations were submitted to the jury for their further scrutiny to determine if the translations were suitable for the purposes of this study. The approval of the entire jury was required in writing by this researcher, attesting to the fact that they had studied the original tests and the cross-cultural translations, made recommendations, and that the final translations met with their approval for the purposes of this research. They were to rate each translation on a scale from 1 to 5; 1 represented "not suitable" and 5 represented "very suitable". No translation was used that received a score of 1 or 2 on either of the rating occasions by any of the members of the jury.

Two troups of students were used as subjects in the experiment. One group consisted of the entire seventh grade in a disadvantaged school. The second group consisted of the entire seventh grade in an advantaged school. The premise was to administer the three tests (the original and the two translations) to both populations. All the tests were randomly assigned in both schools. The hypothesis of the study was that the subjects who were disadvantaged should be better able to answer questions phrased in their own cultural idiom than in an idiom outside their culture. 134 advantaged students took the original test, 130 took translation A, 128 took translation B. 123 disadvantaged students took the original test, 121 took translation A, 120 took translation B. A total of 756 students, both advantaged and disadvantaged, were tested.

Prior to the administration of the tests, the researcher visited each school several times to insure the fact that interest in the study was high, teachers were properly briefed, and that the purpose of the study was understood.

It should be noted that the principals of both schools consented to have the study conducted under the condition that the names of the schools should not bementioned.

The tests were scored by a panel of college students and re-checked by the researcher.

A Factorial Analysis of Variance was performed with two variables (social class and test translation). There were two levels of social class (advantaged and disadvantaged) and three levels of test conditions (the original test, translation A, translation B). The level of significance of the data's deviation from chance expectation was determined by F ratios. A Multiple Comparison of Cells was also performed. In addition to this, a W^2 was performed.

The results of the experiment show that the advantaged students scored a mean of 28.26 on the original test, 29.83 on translation A, and 29.04 on translation B. The disadvantaged students performed much lower than the advantaged students. They scored a mean of 18.84 on the original test, 24.42 on translation A, and 21.98 on translation B. It is obvious that the distance between the two groups is not contant. The disadvantaged perform much lower than the advantaged on the original test; they are less poor on translation B, and least poor on translation A. However, the differences on the results of translation A are still poor. The advantaged students performed better than the disadvantaged students on all tests. The advantaged do not differ significantly from each other. The disadvantaged differ significantly on all three tests; that is, the disadvantaged are significantly better on translation A than translation B, and significantly better on translation B than on the original.

It is extremely important to keep in mind that even though all the statistical evidence supports the hypothesis of this study, the conclusions reached do not indicate that the main problem is an "educational" one. It is not possible to deal with the problems of language in isolation of the problems that are still unresolved in the culture, and expect to handle it successfully. It is statistically true that the subjects of this experiment were better able to answer questions phrased in their own cultural idiom than in an idiom outside their their culture. But the problems of language, as a form of human behavior, can only be resolved when other forms of human behavior are resolved.

63. Morgan, Otis Deloid. An Analysis of Teaching Sequencing and Ordering in Reading by Various Methods to Advantaged and Disadvantaged Third Grade Pupils. Southern Illinois University, 1969. 148p. Adviser: Dr. J. Murray Lee. 70-7304.

The major purpose of this study was to determine which of four methods would be most effective in teaching one aspect of the comprehension construct--noting sequence of events and occurrences--to third grade lower and middle class boys and girls. The methods were demonstrated by: 1. The ability of lower and middle class boys and girls to acquire the skill of sequencing through the basal reading program. 2. The ability, called experience, of lower and middle class boys and girls to acquire the skill of sequencing by excluding basal skill building exercises and replacing them with reading material more closely related to the children's immediate lower and middle class backgrounds. 3. The ability called pacing, of lower and middle class boys and girls to acquire the skill of sequencing, by using materials developed for Item 2 above, with the exercises being broken into smaller building units. 4. The ability, called intensification, of lower and middle class boys and girls to acquire the skill of sequencing through using two sets of materials closely related to their experiential background. In addition to the aforementioned, the experimenter considered whether there was a sex differential as a concomitant factor to the treatments and socio-economic differences.

The study was conducted in a midwestern city of 82,000. It has a school population of 24,000; more than 65% of the students were Negroid.

Eight of the forty elementary schools were randomly chosen for the experiment. They were also randomly assigned a classification of advantaged or disadvantaged on the basis of data obtained from the criteria established by the school district under provisions of the Elementary and Secondary School Education Act of 1965. The combined groups totaled 504 boys and girls.

A pre-test was given, using exercises from two basal reading series. The pre-test had content validity with a reliability coefficient of .72. The same test was used for the post-test after treatment. The criterion measure was obtained from the change score between the two tests.

From the three dimensional design the following results were obtained. 1. There was no three-way interaction. 2. There was no two-way interaction. 3. The advantaged and disadvantaged groups differed significantly on the criterion measure. 4. There was no difference between males and females on the criterion measure. 5. There was significant difference between treatments. All treatments were more effective than that of the control group, the advantaged-disadvantaged boys and girls who followed the basal reading program. 6. There was no difference between all pairs of treatments with one exception. The exception being that of pacing and intensification of treatment did not vary significantly from each other. However, both varied significantly from the control group.

The results led to the following conclusions. 1. The least effective material was that used by pupils in their basal skill-building workbooks. 2. The most effective and most significantly positive was that material developed which reflected the immediate experiences of the pupils. One will recall that this was called the experience treatment. 3. While pacing material and intensifying learning activities of the groups were not significantly different from eachother, both provided significantly more positive gains than the material used by the group which only used their basal reader workbook skill building exercises.

The aforementioned three factors point out material developed around boys' and girls' immediate experiences provide the best means for the acquisition of the skill of sequencing. They demonstrate also that paced material and intensified learning activities are not significantly different from each other in their effect. There is, again, strong implication for one to use material based on the immediate experience of boys and girls as opposed to the broad spectrum audience approach as found in regularly developed publishing company skill building exercises.

64. Porter, Edith Jane. The Effect of a Program of Reading Aloud to Middle Grade Children in the Inner City. The Ohio State University, 1969. 270p. Adviser: Professor Loren Tomlinson. 70-14,034.

The major purpose of the study was to determine the effect of a program of reading aloud by high school students on the reading achievement and interest in reading of middle grade students. In addition, the study attempted to determine (1) the effect of such a program on the reading achievement and positive attitudes of the high school readers, (2) the effect on middle grade students of the model provided by high school students of one who enjoys reading, and (3) the effect of the sex of high school readers on the reading achievement and interest in reading of middle grade children.

The subjects of the study were elementary students from forty-two classrooms in six schools located in the inner city of Columbus, Ohio. The classrooms were slected from schools designated as "priority" on the basis of need for special programs and in areas of the greatest incidence of poverty.

The experimental group consisted of all elementary students in twenty-one classrooms to whom the high school juniors read two times a week for twenty weeks from a selected list of children's books. The control group had no such program. Reading achievement scores for 954 students from grades four, five, and six were obtained from the reading section of the California Comprehensive Tests of Basic Skills. Interest in reading responses for 1,202 children in the same three grades were obtained through the use of an interest in reading response instrument designed for the study. Thirty-four questions were formulated to investigate the elementary students' (1) interest in a reading aloud program, (2) general interest in reading, and (3) perception of the high school student as a model.

Pre- and post-test scores in reading were analyzed using a series of t tests to determine significant statistical differences in experimental and control groups. Responses to interest in reading were analyzed using t tests for subscores and a 2x2 chi square analysis of individual questions.

The twenty-one high school readers attended a weekly seminar on the university campus from November through May to prepare them to use children's prose and poetry effectively in the classroom. A diagnostic reading test was administered before and after their classroom experience and an attitude scale designed for the study was given at the close of the program to determine their feelings toward the project.

Major findings and conclusions of this study included:

1. A program of reading aloud by high school students does increase reading achievement and interest in reading with more statistically significant scores made by fourth grade than either fifth or sixth.

2. Differences in comprehension and total reading were more significant than differences in vocabulary when scores of both boys and girls in experimental groups were compared with control groups.

3. Differences in boys' scores were consistently greater than differences in girls' scores for both reading achievement and interest in reading when experimental and control groups were compared.

4. Lower grades responded more positively than higher grades to the questions on reading aloud programs, and the sixth grade responded more favorably to general interest in reading.

5. The use of high school students as readers provided a model that stimulated and encouraged inner city children to pursue both reading skills and interests.

6. Male readers were more influential than female readers in areas of reading achievement and interest in reading.

7. Girls were generally more responsive to both male and female readers.

8. A program of reading aloud was beneficial to the high school readers themselves both in increased reading achievement and positive self-concept.

9. Teachers should recognize the importance of providing time for reading aloud in the elementary classroom toward improvement of reading achievement and interest in reading.

65. Weber, Billy-Belle Hart. The Effect of Two Language Arts Curricula Upon Standardized Achievement Test Scores in the Inner-City. St. Louis University, 1969. 122p. 70-1876.

The focus of this study was to determine which type of curriculum--the child adaptive or the book-oriented--would be most successful in raising the scores of low-income inner-city black children on the language arts sections of standardized achievement tests. According to much evidence, it is in the language arts that these children have the greatest difficulties in school. Therefore, it seems imperative that methods and techniques be found which are most appropriate to the life-style and culture of these pupils and most likely to permit those now in school to succeed.

Accordingly, eight teachers, four using a book-oriented curriculum and four using a child-adaptive curriculum, were selected from a list of fifth and sixth grade "Superior" teachers in the inner-city district of East St. Louis, Illinois. Two teachers from each grade for each curriculum were used to balance the effects of teacher personality. These teachers received ratings independently from both their principals and their supervisors. A further check was made by the investigator, who had supervised inner-city student teachers, through numerous classroom observations. Final validations of their use of either of the curriculum types cited above were made by the use of teacher and pupil questionnaire. These questionnaires were statistically evaluated by the Chi Square technique. The results from this analysis confirmed the choices made. The fifth and sixth grades were chosen because the California Achievement Test scores at these grade levels were available for pre- and post-test use.

From these teachers' rooms, to which the children had been assigned with no pattern, ten children per room were randomly chosen. Their total May, 1967 Language and Reading scores on the California Achievement Tests, Form X, 1957 Edicion, 1963 Pringing, were used as the pre-tests; their scores of the May, 1968 testing of the same test form were used for the post-tests. Two assessments, one for Reading and one for Language, were made by the use of the statistical tool. Analysis of Variance, Randomized Groups, K=2. Since the means and the standard deviations of both the Reading and the Language original scores of the two groups were not identical, the growth each child made in the experimental year, not the scores on the test, were used in the statistical analysis. The results of the analysis showed that there was no significant difference in the test results of either group; the Null Hypothesis that neither curriculum produced higher standardized achievement test scores in the assessed area of language arts was therefore accepted. The research hypothesis that the child-adaptive curriculum would produce higher scores was, accordingly, rejected.

66. Anderson, Edna Arleen. Cultural Disadvantage as School Disadvantage. University of Minnesota, 1970. 152p. 71-18,674.

Language is a basic tool in any culture. When standard English is used in schools the resulting clash with the nonstandard English of the low-income minority community seems to create a serious barrier to learning. The situation is more complex because of the social stigma that users of standard English assign to those who use nonstandard English.

The problem under study in this project was to attempt to determine whether second grade children could learn to read in the language-controlled environment of the talking typewriters. The talking typewriters were produced by the Edison Responsive Environment Corporation and included the use of varied learning media enclosed in soundproof booths.

One second grade class from a low-income school was transported daily to the talking typewriter center. The number finally used in the experimental group was 20, largely due to family mobility which decreased the number of pupils who were both pre and post tested. The experimental group was matched with a like number of pupils in classes remaining at the school that used traditional textbook methods. Matching was based upon such language variables as the Metropolitan Reading Readiness Test, the Lorge-Thorndike I.Q. tests, numbers of siblings, adults in the home, and mobility of families from kindergarten through grade two.

Both the experimental and control groups were pre and post tested with different forms of the Bond-Balow-Hoyt Developmental Reading Tests for lower primary grades. Statistical treatment of the resulting data produced the results:

(1) Both the experimental and control groups made gains significant at the .01 level of

confidence as shown by computing means and standard deviations of groups for scores in word recognition, comprehension, and comprehension of ideas as shown by pre and post tests.

(2) When experimental and control group gains were compared, differences were not significant at the .01 level of confidence.

(3) The Dixon and Mood Sign Test was used to compare gains or losses by matched pairs of pupils in experimental and control groups. Such differences were not significant at the .01 level.

The inability to control the many language factors in the situations made it difficult to consider the results as conclusive. The study was limited to the particular subjects involved.

67. Beauchamp, Robert F. Selection of Books for the Culturally Disadvantaged Ninth Grade Student. Wayne State University, 1970. 226p. Adviser: William E. Hoth. 71-17,235.

The Problem:

To determine reading interests of culturally disadvantaged ninth grade students who are three to five years retarded in reading ability

To develop book selection criteria in terms of the special needs of culturally disadvantaged youth

To identify books for common classroom reading and study that will appeal to an entire class of culturally disadvantaged ninth grade students who are three to five years retarded in reading ability

To identify 100 books selected on the basis of interests identified in the study and which will interest an entire class of disadvantaged ninth grade students three to five grades retarded in reading

Procedure:

To obtain data, teachers and librarians in slum area schools were interviewed to obtain lists of books interesting to entire classes of ninth grade students; librarians were asked to examine existing selection criteria to determine what needed to be added to make the criteria applicable to disadvantaged youth; books in the list were tried by teachers and the writer in experimental classes of ninth grade students; students in ninth grade classes were interviewed concerning their interests and their reactions to the books; student teachers in these classes were interviewed to verify reactions to books; books recommended by teachers were analyzed for complexity of style, themes, character, setting, and typographical qualities; and each book was assigned a reading difficulty classification based on the Dale-Chall Readability Formula.

Findings:

(1) There are a sufficient number of inexpensive hard cover and paper bound books that do interest an entire class of disadvantaged ninth grade students.

(2) Reading interests of ninth grade students who are retarded in reading three to five grades do not vary substantially from children in other classes except that the interests develop at a later date.

(3) Disadvantaged youth in the ninth grade can and do read books that ought to be "too difficult" for them if these books have extremely high interest.

(4) Books with complex style can be read by these students but the books must have high interest.

(5) These students preferred books with fewer characters but the study did not indicate a clear preference for characters the same age or slightly older than the students.

(6) These students tended to reject books in which the themes of love and romance were primary. Themes of special interest were: perseverance, physical strength, triumph over adversity and obstacles, detective stories in which criminals are apprehended through superior intellect of the detective.

(7) Generally, these students did not reject books with larger type sizer (10 to 14 points) providing the physical appearance of the book was adult.

(8) Adapted classics were successful books with classes of ninth grade students providing description was minimized and action and suspense maximized.

(9) The most successful books for common classroom reading were those that did not exceed 6.0 grade level of difficulty.

Future Research:

There is a strong implication that more comprehensive studies of the reading interests of disadvantaged students are needed. Existing studies are in need of updating and do not reflect the special interests of the inner-city disadvantaged student.

68. Bryant, Willa Coward. A Study of Two Divergent Approaches to Teaching Reading to Educationally Retarded and Disadvantaged Pupils at the Third Grade Level: The Aural-Impress and the Creative-Literary. Duke University, 1970. 119p. Adviser: Joseph C. Johnson, II. 71-10,359.

An essential factor in learning to read involves the process of transfer from the auditory to the visual symbolss--a transfer that necessitates making correct recognition responses to specific sets of patterns in graphic form. Auditory aspects of the reading process have been frequently neglected, and efforts to help children make this essential transition have been limited. No less important to the process is that of the development of vocabulary and verbal facility--a long-recognized prerequisite for learning to read.

Inability to function adequately in terms of auditory and language prerequisites has been noted among the educationally retarded and disadvantaged pupils. Inasmuch as the ability to function in these areas is crucial to the development of efficient readers, it seems essential that efforts be made to design and study methodologies by which these processes can be facilitated. Findings from the literature suggest that the aural-impress and the creative-literary methodologies may be more effective in working with disadvantaged pupils than traditional methodologies. Therefore this study was designed to test the effectiveness of the aural-impress and the creative-literary methodologies in teaching reading to educationally retarded and disadvantaged pupils at the third grade level.

The primary null hypothesis tested was that there is no significant difference in growth in vocabulary development and reading comprehension as measured by the Gates-MacGinitie Reading Tests for educationally retarded and disadvantaged pupils taught by the aural-impress and the creative-literary methodologies, and these pupils taught by traditional methodologies. The subordinate hypothesis tested was that any relationship between growth occuring in vocabulary development and reading comprehension is not dependent on any of the variables of chronological age, intelligence, sex, race, and parental occupation.

The sample was composed of 104 third grade pupils assigned to special remedial reading classes in eight Durham, North Carolina, city schools located in low socio-economic areas. The experimental group, composed of 12 pupils in ten classrooms, selected on the basis of age and scores on the Gates-MacGinitie Reading Tests, made up the ten experimental groups. The 52 pupils used as controls were paired with the pupils in the experimental group on the basis of age, grade, and scores on the California Test of Mental Maturity.

Both groups were given instruction for three 45-minute periods each week for sixteen weeks by special teachers assigned to the schools participating under ESEA Title I. Aural-impress procedures designed to simulate auditory and visual perception by the impress of sound to the aural-sensory receptors simultaneously with visual stimuli and the creative-literary methodologies were used with the experimental group. Traditional methodologies were used with the pupils in the control group.

The data for the study were obtained from the Gates-MacGinitie Reading Test Forms 1 and 2 in pre-test, post-test administrations; the California Test of Mental Maturity; and the Warner, Meeker Eells Occupational Rating Scale for assessing socio-economic status.

Analysis of data was facilitated by an electronic computer and consisted of pre- and post-test results. An analysis of variance and covariance was employed to determine whether there had been significant gains in reading comprehension and vocabulary enhancement.

The results obtained indicated that the aural-impress and the creative-literary methodologies were significantly superior at the third grade level in both reading vocabulary and reading comprehension when compared with children taught by more conventional methods. The methods were generally successful in developing verbal skills and reading proficiency as measured by these same instruments.

69. Butler, Joseph. Comparisons of Listening Abilities, Categorized as Good and Poor, of Inner-City Children in the Sixth Grade. Indiana University, 1970. 128p. Adviser: Dr. James D. Walden. 71-11,371.

This study was designed to compare the listening abilities of inner-city children in the sixth grade. The following avriables were examined: reading, intelligence, school achievement, and sex. In addition to an examination of the variables listed, it was also the goal of this study to answer the following questions: (1) What listening skills do inner-city children possess? (2) What listening skills are being developed in the classroom? (3) How do good and poor listeners perceive their listening habits? (4) How do teachers view their roles in developing listening skills? (5) What judgments do teachers make of good and poor listeners?

The STEP, Listening Test was administered to 124 sixth graders in one large inner-city elementary school. The students whose scores appeared in the upper quartile were assigned as good listeners and those whose scores appeared in the lower quartile were assigned as poor listeners. The final sample included 24 good listeners and 27 poor listeners. Test scores from the Stanford Achievement and the Otis-Lennon Mental Ability were taken from the principal's test file. Three questionnaires were developed and administered by the investigator. One questionnaire presented the teachers in this study with the opportunity to consider their roles in developing listening skills in the classroom. The second questionnaire presented the teachers with the opportunity to give their judgments of the sample used in this study. The students reported their perceptions of their listening habits on the third questionnaire. An observation check list was designed by the investigator to guide him in classroom observations. This check list was used in determining the listening skills that were being developed in the classrooms.

The data for analysis consisted of raw scores from the standardized tests and numerical values assigned to the questionnaires designed for this study. Response distributions and percentages were reported from the questionnaires and a t test for significant differences between mean scores were computed for the independent and dependent variables. A correlation matrix was used to demonstrate relationships between the variables.

Significant differences were found between good and poor listeners on tests of word meaning, paragraph meaning, intelligence, and listening habits. The differences were significant at the .05 level of confidence. There were no significant differences in the listening abilities of boys and girls. A significant relationship was found between listening ability and poor listening habits for the poor listeners (.32). Little attention was given to the development of listening skills in the classrooms. Listening abilities were found to be one standard deviation below the national norm. Significant relationships reported without regards to groups were:

Word Meaning	.3990
Paragraph Meaning	.5550
School Achievement	.4679
Intelligence	.6488
Poor Listening Habits	.3681

The *STEP, Listening Test* seems to have merit as an instrument to assess listening ability of inner-city children. The ability to listen well has definite and positive implications for scholastic achievement. Good listeners tend to be higher in intelligence than poor listeners. Good listeners practice better listening habits then poor listeners. There are no differences in the listening abilities of boys and girls.

70. Dauzat, Jo Ann. *The Effectiveness of Four Methods of Teaching Word Recognition Skills to Children from Disadvantaged and Non-Disadvantaged Families.* Northeast Louisiana University, 1970. 115p. Adviser: Dr. Bernard Shadoin. 71-12,522.

The major purposes of the investigation were to determine whether or not disadvantaged children learn more effectively from one particular method of teaching word recognition skills, and to determine if the effectiveness of methods of teaching word recognition is significantly different when presented to disadvantaged and non-disadvantaged children.

The second grade students in the public schools of Lincoln Parish, Louisiana, were divided according to socio-economic status. A random selection of twenty disadvantaged children, those whose family income is $3,000.00 per year or less, and twenty non-disadvantaged students, those whose family income in in excess of $3,000.00 per annum, was made from 529 second grade students in the parish. The researcher administered the Mills Learning Methods Test, which includes teaching and testing procedures for visual, phonic, kinesthetic, and combination methods of presenting word recognition skills, to each of the forty subjects individually. The obtained data were analyzed through a two-way classification analysis of variance, Lindquist Type 1 Design. The sugjects were divided according to both race and sex and additional analyses were made, employing the same design.

The following are results of the ststistical analyses and conclusions which are based on the analyses.

The visual method for presenting word recognition tasks was significantly more effective than either the phonic or kinesthetic methods, regardless of the socio-economic status, race, or sex of the subjects. The combination method was significantly better than the kinesthetic method. The visual method appears to be the most effective for teaching seven-year-old children to learn new words, while the kinesthetic method appears to be the least effective method with that age group.

Non-disadvantaged children performed significantly better than disadvantaged children on each of the four learning methods. Children of adequate means tend to learn more new words in a given length of time than do disadvantaged children, regardless of the method by which they are taught.

The results indicated no best method for presenting word recognition tasks to disadvantaged learners as a group. Disadvantaged students do not appear to have a learning style of non-disadvantaged children. Those methods of instruction which are effective with non-disadvantaged learners should also prove effective with disadvantaged learners.

The performance of white subjects on the Learning Methods Test was significantly superior to that of Negro subjects. Negro students tend to perform less efficiently with word recognition tasks than do white students, regardless of the method by which they are taught.

No one method was found to be significantly more effective for Negro subjects than for white subjects. Even though Negro students tend to perform more poorly than do white students when presented with word recognition tasks, they seem to learn through the same methods of instruction.

Female subjects achieved significantly higher scores on each of the four methods than did male subjects. Male students tend to perform with less efficiency on word recognition tasks than do females, regardless of the teaching method.

The results of the study indicate that the learning styles of disadvantaged students do not differ as much as has been suggested by various authors. The specific socio-economic, sex, and racial characteristics of students do not appear to influence the methods of word recognition to which learners will respond most readily and most effectively.

71. Davis, Abraham, Jr. An Accelerated Speech Curriculum for Selected Educationally Disadvantaged Negroes. Indiana University, 1970. 301p. Adviser: J. Jeffery Auer. 71-17,443.

This exploratory study was concerned with the development of an accelerated rhetorical speech curriculum for educationally disadvantaged Negroes. The critical term, "rhetorical," was used synonymously with "speech communication" with a sharp focus on specific training in (1) generalization criticism, (2) speech organization, and (3) speech motivation. Focus on these components instead of on remedial articulation, therefore, made this study uniquely rhetorical for educationally disadvantaged Negroes.

The study is the result of approximately one and one-half years of speech workshops under four different sent of circumstances with four different groups of Negroes. The subjects included (1) adults in a Negro church in Buffalo, New York, (2) adults in a community service center in Allentown, Pennsylvania, (3) academically disadvantaged high school graduates from the inner cities of New York and Philadelphia in a college preparatory program of Muhlenberg College in Allentown, Pennsylvania, and (4) "basic level" seniors at East High School in Buffalo, New York.

The need for this rhetorical training for disadvantaged Negroes was partially indicated by the general neglect of this emphasis in the literature of higher education, including the field of rhetoric and public address. More specifically, this speech curriculum is *needed* because: (1) high schools and colleges--black and white--offer little or no public speaking for the rather illiterate Negroes in their communities, (2) Negroes are now permitted to apply for local speech-oriented jobs, to run for public office, and to participate in racially integrated discussions; but many hesitate to apply because of deficient *rhetorical* skills; and (3) academically disadvantaged Negroes need to be motivated and *trained* to participate perceptively in civic discussions, in political campaigns, as well as to detect the unsound generalizations of politicians, salesmen, and religionists who constantly try to influence their behavior.

The *basic objectives* of this study were finally reduced to two:

1. To train educationally disadvantaged adult Negroes to ask critical questions of persuasive speakers who try to influence their behavior in politics, economics (buying and selling), and in religion.

2. To motivate and train educationally disadvantaged Negro adults and high school senior or graduates to make their *oral* contribution in integrated civic discussions and public address by *intelligently* and *relevantly* telling their racial experience and expressing their opinions.

The *methods* for achieving these essential objectives were consonant with basic learning theory in identifying objectives, in making assignments, in motivating students, and in appraising their achievements. The variety of means employed in the curricular approaches included tape recorders, pictures, sketches, music, model speeches, role playing, interpretation of literature, informal discussion and a minimum of writing.

Common limitations and problems forcing this study to be *exploratory* rather than "experimental" were (1) irregularity of attendance, (2) small numbers of faithful enrollees, (3) relative illiteracy, and (4) subjects' self-consciousness of being in a "school" and testing atmosphere. Despite these limitations, however, the instructor tried a variety of means in collecting data to indicate the significance and practicality of his curriculum for the educationally disadvantaged subjects. Pre- and post-tests for articulation, basic speech structure, and generalization criticism were administered.

In addition to these tests, outcomes of the subjects' performances were indicated by critical analyses of tape recordings and written evaluations by selected enrollees. The outcomes, despite extraneous variables, were generally in the direction hypothesized by the instructor.

Resultant from this study and others similar to it, the instructor noted its heuristic potential for the *researcher* as well as the teacher *particularly* in the field of rhetoric and public address, but *generally* in *other* disciplines of liberal arts with *other* students--white as well as black, academically advantaged as well as academically disadvantaged. "Recommendations and Suggested Guidelines" were made, therefore, in the fifth and final chapter for both the researcher and the teacher.

72. Frazier, Irene Joan Bessolo. *Relationships of Local Pupil Mobility to Reading Achievement and Intelligence Test Results of Educationally Disadvantaged Children*. Colorado State College, 1970. 147p. 70-13,334.

The study explored relationships at grade three and grade five of local pupil mobility to reading achievement and intelligence test results of educationally disadvantaged children to eighteen Target Area schools of Denver, Colorado.

The study population included 311 non-mobile and 357 locally mobile pupils enrolled in the sixth grade of eighteen Target Area elementary schools of Denver, Colorado, which participated in an ESEA Title I project for enriched and improved education during 1968-1969 or 1969-1970. Every child included in the study had entered the Denver school system in kindergarten or September of grade one and progressed to grade six within regular classrooms of Denver Public Schools

The study explored the following questions:

1. Is there a difference in selected test results of non-mobile and locally mobile disadvantaged children?

2. Does the number of times a disadvantaged child moves to a different school within a district show a relationship with his test results?

3. Is there a relationship between the grade level(s) at which a disadvantaged child moves to another school within a district and his test results?

4. Is there a relationship between local mobility and non-promotion of disadvantaged children?

Cumulative record folders of the study population were examined, and the following information was recorded for each pupil: school, sex, grade level at first school enrollment (k or I only), frequency and grade levels of subsequent moves, grade levels of non-promotion, Kuhlmann-Anderson IQ scores at grades three and five, and grade level scores in word meaning and paragraph meaning sub-tests of the Stanford achievement test at grades three and five.

The t-test for unrelated measures was used to compare reading achievement and intelligence test results of the two groups at grade three and at grade five. Analysis of variance techniques were employed in exploring relationship of test results to frequency and grade levels of moves. The chi-square formula was applied to compare observed and expected frequency and grade levels of non-promotion.

1. The null hypothesis, that there is no difference in reading achievement, as measured by the mean grade level scores in word meaning and paragraph meaning, and in mean IQ scores of non-mobile and locally mobile disadvantaged children, was rejected at the third-grade level and at the fifth-grade level.

2. The null hypothesis, that there is no difference in mean reading achievement and IQ scores of non-mobile and locally mobile disadvantaged children who have moved a different number of times, was rejected for IQ scores and not rejected for reading achievement scores at third grade; at fifth grade, it was rejected for IQ and for reading achievement scores.

3. The null hypothesis, that there is no difference in mean reading achievement and IQ scores of locally mobile disadvantaged children who have moved the same number of times but at different grade levels, was not rejected.

4. The null hypothesis, that there is no difference in the frequency of non-promotion of non-mobile and locally mobile disadvantaged children, was rejected. The null hypothesis, that there is no difference in the grade level(s) of non-promotion, was not rejected.

Conclusions:

1. Selected test results revealed differences in reading achievement and IQ scores between non-mobile and locally mobile disadvantaged children.

a) At the third grade level and at the fifth-grade level, there was a significant difference in reading achievement, as measured by the mean grade level scores in word meaning and paragraph meaning, between non-mobile and locally mobile disadvantaged children, favoring the non-mobile group.

b) At the third-grade level and at the fifth-grade level, there was a significant difference in mean IQ scores between non-mobile and locally mobile disadvantaged children, favoring the non-mobile group.

2. Relationships were not consistent between the number of local moves and test results of disadvantaged children. At the third-grade level, there was a difference between mean IQ scores of non-mobile and locally mobile disadvantaged children who moved three times, favoring the non-mobile group. At fifth grade, there was an over-all difference in mean reading achievement and IQ scores among groups of varying mobility, but individual comparisons between mean scores of the groups failed to reveal differences between any two groups.

3. There was no significant relationship between the grade level(s) of local moves and test results of mobile disadvantaged children: in reading achievement, as measured by mean grade level scores in word meaning and paragraph meaning, or in mean IQ scores.

4. Locally mobile disadvantaged children were not promoted with the same frequency as non-mobile disadvantaged children, regardless of the grade level at which they were retained.

73. Frentz, Thomas Stanley. Children's Comprehension of Standard and Black English Sentences. The University of Wisconsin, 1970. 107p. Adviser: Associate Professor Frederick Williams. 71-2216.

Contemporary linguistic research has argued that the numerous grammatical differences which distinguish standard from Black English represent differences in the surface structures of the two dialects and that the deep structure components of the dialects are virtually idental (Labov, in press). If this argument is correct, then dialect user's performance on a deep structure or comprehension task ought to vary as a function of the dialect used such that Black English speaker performance with Black English sentences ought not to differ significantly from standard English speaker performance with standard English sentences. Recent research (Baratz, 1969) did find that user performance varied as a function of dialect in a sentence production-type task such that when performance was assessed in terms of Black English sentences, Black children performed better than white children, but that when performance was assessed in terms of standard English sentences, white children performed better than Black children. If this finding has generality across a comprehension task, and if the two dialects have similar expressive or deep structure capacities, then one would expect that dialect user performance would be dependent upon the dialect used and that the dependence would be manifested in a pattern such that:

1. When performance was compared in terms of Black English sentences, Boack children would perform better than white children (i.e., would have fewer error ans shorter latency times).

2. When performance was compared in terms of standard English sentences, white children would perform better than Black children.

3. Black children's performance with Black English sentences would not differ significantly from white children's performance with standard English sentences.

The present tense, singular-plural grammatical distinction marked by inflection was the distinction considered in the present study. Thirty white and 30 Black third grade children were presented an array of 32 sentence-picture combinations. The sentences varied between standard and Black English and between singular and plural, while the pictures varied between singular and plural. Either a singular sentence/singular picture combination defined a "means same" condition, while either a singular sentence/plural picture combination or a plural sentence/singular picture combination defined a "means different" condition. In the testing procedures, Ss saw a picture projected on a screen and then heard a sentence through earphones. An S's task was to press either a "means same" or a "means different" button depending upon whether the sentence and picture had similar or different grammatical markings. The dependent variables were (1) an S's meaning response score--i.e., whether the S pressed the correct button--and (2) an S's response latency--measured from the end of audio input to the pressing of either button. The data were analyzed by two 8-way analyses of variance withrepeated measures across four of the variables. The primary prediction was analyzed by inspecting the race by dialect interaction on both dependent variables.

The following summary results were obtained: First, contrary to expectations, no significant race by dialect interaction was found for either dependent variable. Second, combined S performance with Black English sentences did not differ significantly from such performance with standard English sentences. Third, white children performed significantly better than Black children in terms of the correctness of response measure only in singular sentence conditions. Finally, plural sentence/plural picture combinations required shorter response latencies than any other sentence-picture combinations.

Two conclusions were of theoretical interest: First, that S performance as defined by race did not vary as a function of dialect suggested that perhaps dialect is not a crucial variable in sentence comprehension as it is in sentence production. If this interpretation is correct, than one educational implication would be that greater emphasis ought to be put on the differential effects of standard and Black English in production and comprehension situations. Second, that combined S performance with Black English sentences did not differ significantly from performance with standard English sentences provided some behavioral support for the linguistic hypothesis that standard and Black English have virtually identical deep structure or expressive capacities.

74. Melmed, Paul Jay. Black English Phonology: The Question of Reading Interference. University of California, Berkeley, 1970. 100p. 71-15,837.

An investigation was conducted to test the commonly reported assumption that black English dialect interferes with reading. Data from forty-five, lower SES third graders were collected and analyzed to measure racial group differences on four interrelated variables: auditory discrimination, oral reading comprehension, BE phonology usage, and silent reading comprehension. The study was limited to the degree to which BE phonology was used. Only dialect differences from five types of phonological categories were analyzed: r'lessness, l'lessness, simplification of final consonant clusters, weakening of final consonants, and vowel variations.

Sixty-six words reflecting these five phonological categories were merged to form thirty-three minimal pairs which are different in SE but which may be homonyms in black English. Associative illustrations for each word pair were produced. The e same homonyms were used in four tests designed to measure dialect phonology interference in reading comprehension.

The picture-pairs were shown to each child during Test I, Auditory Discrimination, as a prerecorded tape was played. Only one word of the pair was presented and the child pointed to the picture representing the word he heard. In Test II, Oral Reading Comprehension, and Test III, BE Phonology Usage, while the subject was being recorded he read a sentence containing only one word in the pair and again pointed to the picture associated with the word he had read about. Finally, in Test IV, Silent Reading Comprehension, experienced elementary school teachers administered a paragraph reading test patterned after the ratio-cloze technique. The teachers gave this test to their classes in a manner similar to the administration of other group silent reading tests.

An attempt to control vocabulary, language complexity, and interest was made possible through checks against basal reading lists, teacher opinion, and student responses to pilot test items. Content and subject matter for the reading tests were selected from stories written or told by children in the school district under study. This procedure reduced test bias by making items culturally realistic and environmentally relevant to the subjects.

A seventeen-year-old black male who was raised and educated in the same community as the subjects assisted the author in administration of the four tests. His familiarity with the subjects as well as his relaxed and verbally intimate approach encouraged the most reticent children to respond eagerly.

Relative to the results of the data, these general findings may be summarized. When given dialect-loaded tests, the black subjects in this study had more difficulty than any other group of subjects on two tasks. First, the black youngsters did significantly poorer in auditorily discriminating word pairs which may be homonyms in black English but different words in standard English. Secondly, these same children produced these word pairs as homonyms while the other children differentiated the words in their speech. It was shown that several additional sets of homonyms existed for these black subjects which were separate words for the other subjects.

Although the black group did significantly differ with respect to auditory discrimination and black English phonology usage ($p < .009$; $p < .0001$), they showed no inability to comprehend these words while reading orally or silently. Thus, pronunciation of standard English forms in isolation appears to have little relationship to the comprehension of these forms.

The phonological category which seemed to cause most confusion for the black subjects was vowel variations. There was also a tendency for errors to occur in words contrasted by l'lessness and simplification of final consonant clusters. But even these confusions were reduced by simply inclreasing the syntactical and contextual clues in sentences and paragraphs.

Educational implications and recommendations for reading and language instruction are discussed. Techniques for assessment of speech and language differences which may cause interference in reading are also presented.

75. Petrie, Ronald Gene. A Comparison of Verbal Responses of Anglo-Migrant and Anglo-Resident Children. Oregon State University, 1970. 121p. 70-27,038.

The study compares the differences in verbal responses between 39 Anglo-resident and 32 Anglo-migrant children in the first grade in selected school districts in Oregon.

The children were tested for I.Q. using the Goodenough Draw-A-Man test. They were grouped for comparison purposes by age, sex, and by migrancy or residency.

The children were shown 12 pictures from the Davis-Eeels Games, and asked to "tell about the picture." The responses were tape recorded, transcribed, and compiled for interpretation.

Males and females, residents and migrants, and older and younger children were compared for differences in: 1) vocabulary (according to Dolch Hard and Easy Word Lists); 2) types of sentences (structure); and 3) for the number and length of sentences (as determined by morpheme count). The study also compared the relationship between general ability as measured by the Goodenough Draw-A-Man test and verbal responses for both groups.

Using the analysis of variance technique, significant differences were recorded for the Dolch Easy and Total Dolch Words Lists favoring males over females and residents over migrants.

There were five sentence structure patterns out of a possible 53 which showed significant differences. On these five sentence structures, there were significant differences favoring males over females, residents over migrants, and older children over younger children.

There were significant differences favoring males over females and residents over migrants, and older children over younger children with reference to the length of sentences used and the number of sentences used to describe various pictures.

The most significant result of the study, aside from veryfing that there are differences between migrants and residents in verbal responses, is the consistent difference favoring boys over girls. This appears to be the result of the materials used to elicit the verbal responses. The study indicates that perhaps what is presentd, and how it is presented, may be more important than any other consideration in terms of stimulating verbal responses.

76. Thompson, Diane Daniels. Attributions of Ability from Patterns of Performance Made by Advantaged and Disadvantaged Children. The University of Connecticut, 1970. 94p. 71-16,050.

The purpose of the study was to examine the ability attributions made by advantaged and disadvantaged students on the basis of pattern of performance. It attempted to identify some factors and conditions of ability attribution which appeared to be related to the maintenance of a positive sense of self-esteem and to investigate possible differences between the ability attributions made by disadvantaged and advantaged pupils.

The design constituted an eight condition (2 x 2 x 2) experiment. During the experimental task, two students, a naive subject and an experimental accomplice, each answered a series of twenty vocabulary questions at the same time. Pre-determined feedback as to the correctness of the subjects' responses was given after each attempt. The experimental accomplice, who served as a stimulus person (SP), answered ten questions correctly in either an improving (ascending condition) pattern of success. The naive subject always answered ten questions correctly in the same random order.

As part of the testing situation, a game element was concurrently introduced. Half of the subjects were told that the student who performed better on the test would win the game and receive a prize (competitional condition). The other half of the subjects were instructed that if they worked together to achieve an arbitrary standard, each of them migh win a prize (non-competitional condition). In actuality, both subjects won the game in all conditions.

At the conclusion of the first test, a second vocabulary test was administered. During this test, the stimulus person answered a second series of twenty questions, and the naive subject recorded her predictions as to the correctness of SP's answers. No feedback was given during the second test. Subjects then completed a questionnaire containing recall and predictive measures and checks on the manipulations. A total of forty advantaged and forty disadvantaged female students in the fifth and sixth grades were used as subjects (advantaged and disadvantaged conditions).

An analysis of the variance of SP-S recall of Test 1 performance revealed an interaction effect ($F_{1,79}=9.1513$, $p<.01$) such that descending SP was recalled as having a superior performance in the competitional conditions but not in non-competitional conditions. The analysis further showed a difference between the two types of subjects such that only the disadvantaged subjects attributed greater ability to ascending SP in non-competitional conditions ($F_{1,79}=4.4454$, $p<.05$).

Analyses of variance on the prediction variables failed to achieve significance. It was tentatively concluded that this reflected a developmental characteristic of the subjects who apparently lacked an adult-like future orientation.

The results attributing superior ability to a descending stimulus person in competitional conditions, but not in non-competitional conditions, was discussed in terms of a threat to self-esteem. It was argued that the early success of descending SP in the competitional conditions posed a threat to the subject's self-esteem which could be removed by distorting SP's ability upward. In non-competitional conditions, where descending SP's early success was of potential benefit to the subject, no threat to self-esteem existed, and there was no need to attribute unusually high ability to the stimulus person. It was suggested that the difference between advantaged and disadvantaged subjects was a consequence of the disadvantaged subjects' weaker sense of self-esteem and reflected their need for very early positive success.

A review of the related literature and suggestions for further research were included in the study. Apparent differences between child and adult attributions of ability and differences between advantaged and disadvantaged children were discussed in terms of curriculum planning.

77. Ware, Donald Lavonne. The Effects of Cultural Bilingualism Upon the Ability of Special Class Educable Mentally Retarded Children to Transfer Word Meanings from Non-Standard English. The Ohio State University, 1970. 76p. Adviser: Professor G. Orville Johnson. 71-7589.

This study was designed to investigate the relationship between the use of public language by special class educable mentally retarded and regular class borderline children and its effects upon verbal cognitions. The investigation was specifically concerned with word meaning, and the ability of the child to transfer word concepts from non-standard English to standard English forms. In addition, an attempt was made to determine if certain developmental and/or grouping effects would show a significant relationship to verbal ability within these sample groups.

A review of the literature revealed that very little research has been done relative to educable mentally retarded populations in which (1) language development has been defined in broad terms using communication behavior rather than speech pathology per se as a functional bases for direct observation and evaluation, and (2) whose subjects are reflective of lower socioeconomic non-instituionalized populations.

The standard and modified form of the Word Meaning Test of the Stanford Achievement Test, Form W, Primary Battery II was administered to a group of special class educable mentally retarded and a group of regular class borderline children. Taking into consideration the low reading ability of both the educable mentally retarded and borderline subjects, the test was administered verbally to each subject, requiring a verbal response in the selection of the correct word.

The data was analyzed to yield inter group as well as intra group verbal achievement scores.

It was hypothesized that there will be no significant differences between the educable mentally retarded and borderline group's ability to transfer word meanings from non-standard English to standard English as measured by both the standard and a modified version of the Word Meaning Test of The Stanford Achievement Test, Form W, Primary Battery II.

The major conclusion of the study was that children from lower class groups display an ability to conceptualize, transfer and communicate within and between two language forms. It is also apparent from the results of this study that a bilingual co-existence is prevalent among children from lower-class groups.

78. Crump, William Donald. Auditory Discrimination Among Disadvantaged Elementary School Children and Effects of Speech Sound Training on School-Related Language Skills. George Peabody College for Teachers, 1971. 159p. Adviser: S. C. Ashcroft. 72-3823.

Research has demonstrated deficits in auditory discrimination among children reared in disadvantaged environments. Theories have been proposed about the effects of these deficits on competencies important for school success. However, questions exist about the validity of deficits in auditory discrimination among disadvantaged youngsters when criticisms of assessment procedures are considered. Also, some educators doubt the value of instructional procedures which focus on perceptual processes since little evidence exists verifying their effects on school learning skills. The present study was designed to investigate deficits in auditory discrimination among disadvantaged children, to assess the effects of instructional procedures designed to enhance skill in auditory discrimination, and to evaluate the influence of these procedures on work attack skills and spelling.

Subjects for the study were forty-eight Negro children enrolled in two self-contained third grade classrooms in an inner city school eligible for funds under Title I of ESEA. The mean chronological age for the group was 106.08 months (s=4.57) and the mean group intelligence score was 85.65 (s=9.31). The quiet and noise subtests of the Goldman-Fristoe-Woodcock Test of Auditory Discrimination were administered first to all subjects followed by measures of sound blending, word analysis skills, and spelling. Before data were analyzed, subjects were randomly assigned to experimental and control groups of twenty-four subjects each. The experimental group was given twenty-four lessons of speech sound training emphasizing the articulatory-acoustic characteristics of phonemes. After the instructional program, subjects were re-evaluated on the measures used initially.

The results indicated that disadvantaged children do not differ significantly from the standardization sample on auditory discrimination under listening conditions of quiet and noise as measured by the Goldman-Fristoe-Woodcock Test of Auditory Discrimination. However, since dialect differences most affect vowel sounds and the G-F-W Test of Auditory Discrimination does not include items requiring the discrimination of vowels, perhaps the measure was not sensitive to these differences. Three implications were evident from these results. They were:

1. Research findings should be reported for particular test instruments rather than the complex skill of auditory discrimination;

2. Deficits in auditory discrimination among children from different racial and ethnic backgrounds might be better conceptualized in terms of speech and language habits of a different dialect thus avoiding the inference of sensory or perceptual deficits;

3. The term "disadvantaged" offers little useful information in planning individual instructional programs but the specification of dialect groups may aid in the identification

of points of confusion in phonology.

The results for the instructional program provided some support for the value of speech sound training. Statistically significant gains for the experimental group over the control group were achieved on sound blending and trends favoring the experimental group were noted on both subtests of auditory discrimination and on word analysis skills. Spelling achievement was least affected by the program. The implications are that skills such as sound blending or auditory discrimination may be improved through instructional programs but that tasks as complex as spelling require direct instruction.

The results for the final purpose of the study revealed that error patterns within the language skills studied vary little from the expected trends, except perhaps for spelling. An analysis of the items on which auditory discrimination errors were predominant indicated that the morphological and syntactical components of language provide additional cues for the discrimination of phonemes. Apparently the closer the auditory discrimination of phonemes. Apparently the closer the auditory discrimination task to the real-life demands in listening, the less difficult the discrimination task. A major implication from the entire study was that educators need to be aware of the theory and rationale on which research findings are based.

79. Gifford, David Stanley. The Effectiveness of Training in Listening to Compressed Speech as a Means of Increasing the Listening Comprehension of Disadvantaged Minority Group Children. The University of Connecticut, 1971. 178p. 72-14,231.

The problem in this study was to determine if training in listening to compressed speech at a fairly high level of compression would improve general listening comprehension of minority elementary children who live in a disadvantaged area.

This study was conducted during February, March and April, 1971 in the Arsenal Elementary School in Hartford, Connecticut. Arsenal School is in the center of an inner city ghetto area where the families of the children attending the school are classified at or below the poverty level. The experimental procedures were carried out using the facilities of the media center at the school and the system-wide media center located in the school system administration building.

Sixty-four sixth grade pupils were involved in the experiment. Each subject was randomly assigned to one of two experimental conditions. The experimenter personally conducted the entire experiment.

All subjects learned alone under individualized learning conditions. The experimental lessons consisted of fifteen audiotape and workbook lessons on various aspects of listening skills needed in a typical elementary school curriculum program. The devices employed to present these lessons were self-contained portable audiotape players with earphones. Each child had a separate player, earphones and lesson tape. The experimental group of thirty-two subjects listened to the audiotape lessons at increasing degrees of speech compression from ten percent at the start of the lessons to forty percent for lessons ten through fifteen. The control group also of thirty-two subjects listened to the same lessons but at the normal speech rate of 165 words per minute. Subjects were permitted to repeat portions of the lessons to gain better understanding of the concepts presented.

An achievement test of general listening comprehension, Form 4B of the STEP Listening test was administered to all subjects after undergoing the treatment lessons. In a retesting of sub-samples of the experimental and control groups Form 4A of the STEP Listening test was administered as a retention achievement test. Scores from these achievement tests provided the data for statistical analysis.

Before the treatment period began scores from Form 4A of the STEP Listening test were analyzed using Bartlett's Test for Homogeneity of Variances. The analysis indicated that the two groups could be considered comparable. Data relating to achievement scores from the subjects in the experimental group and the control group were analyzed by a single-classification analysis of variance computer program which also yielded an equivalent t test value. The sub-samples from the two groups were analyzed by the same procedure.

Statistical analysis of the data filed to show a significant effect due to the experimental variable. A similar analysis was made on the data obtained when the experimental and control group sub-samples were retested. The result of this analysis was also non-significant.

80. Johnson, Nancy Julia Ann. Acceleration of Inner-City Elementary School Pupils' Reading Performance. University of Kansas, 1971. 192p. 71-27,160.

The results, and moreover, the success of Operation Upgrade resoundingly demonstrate the effectiveness of high school youth tutoring their younger counterparts in the community. These tutors helped 85% or 140 of their pupils improve their reading skills. Put another way, 140 children improved their reading skills through the help of high school-aged tutors, that is, 140 children improved who probably could or would not otherwise have advanced without this type of intervention program.

Admittedly, this type of program does not provide an overall solution or panacea for the problems faced by urban education today. However, it does provide a partial solution. It makes use of, perhaps, its most valuable community natural resource; the minds of youth. It actively involves these minds in combating one of the greatest evils ever faced by a child--school failure.

By becoming involved, these minds, these bodies, these spirits take on new meaning and assume a new personal importance. Not only are the pupils helped, but the tutors themselves find new self-worth. As put by one subbing tutor, "I never thought that I could help nobody learn readin', but listen, Miss Johnson, he can read."

Hopefully the motivational and educational experience gained by the tutors will provide the inspirational boost required to keep them personally committed to their own education.

Another clear fact appears in this study. The graded reader does not always provide the best learning experience for the pupil. It may do so for individual pupils, but then again, it may not. Once, if ever, this point gets across to school administrators, we may be able to end this ridiculous attempt at regimentation, while at the same time maintain individual differences.

Administrators long ago accepted the fact that no one shoe size, hat size, or coat size fits every child. And yet today, it is possible to walk into a classroom and find every child reading from the same reader. Much worse, one finds every child reading from the same page in the same reader.

Further exploration reveals that the same reading series is used in every classroom not only in that school, but throughout the entire system. The reading series is not the only thing in the school curriculum dedicated to the proposition that the same shoe should, theoretically, fit every child. Every subject in the curriculum comes from a single source designed for the purpose of teaching that subject. Even school lunches follow this rubric.

81. Madden, John Bernard. Language Arts Achievement and the Orbanizational Climate of Schools: An Investigation Undertaken in the Inner-City Schools of Kansas City, Missouri. University of Missouri-Columbia, 1971. 130p. Adviser: Dr. Neil C. Aslin. 71-22,884.

Purpose: To determine the effects of open and closed organizational climates on grade 6 pupil language arts achievement in inner-city elementary schools.

A two-way analysis of covariance was used to test each of the 12 hypotheses formulated. The population for this study was composed of grade 6 male and female pupils attending three open climated schools and three closed climated schools, and for whom scores were available on the Lorge Thorndike I.Q. test. The scores ensured (1) a stable population of disadvantaged pupils, and (2) a covariate for control. A random sample of 64 male and female grade 6 pupils were drawn from each of the two categories of schools. The schools were categorized through the analysis of the data gathered by the administration of the Organizational Climate Description Questionnaire (OCDQ) to 16 inner-city elementary schools.

Scores on the Iowa Tests of Basic Skills in vocabulary, reading, mechanics of correct writing, and overall language arts were used as the dependent variables, while climate and sex were the independent variables.

Analysis of the data produced the following findings:

(1) Overall achievement in language arts, vocabular, reading, and the mechanics of correct writing were not significantly different between grade 6 pupils attending open or closed climated schools.

(2) Female grade 6 pupils achieve significantly higher in open climated schools in overall language arts, vocabulary skills, and reading skills.

(3) Male grade 6 pupils achieve significantly higher in closed climated schools in overall language arts, vocabulary skills, and reading skills.

The following conclusions appear warranted:

(1) When the effects of intelligence of disadvantaged grade 6 pupils of inner-city schools are controlled, there are no significant differences in achievement in overall language arts, vocabulary skills, reading skills, and the mechanics of correct writing beween disadvantaged grade 6 male and female pupils attending achools characterized by an open or closed organizational climate.

(2) When the effects of intelligence are controlled, there are significant differences in the interactive effects between organizational climate and sex.

(a) Disadvantaged grade 6 female students achieved significantly higher in vocabulary skills and reading skills when attending schools characterized by an open organizational climate.

(b) Disadvantaged grade 6 male students achieved significantly higher in overall language arts skills, vocabulary skills, and reading skills when when attending schools characterized by a closed organizational climate compared to schools characterized by an open organizational climate.

82. Taylor, Harry J. Evolving a Better Reading Program in an Inner City Junior High. Wayne State University, 1971. 169p. Adviser: Dr. Wendell Hough. 71-29,803.

This study was designed to determine if there were any significant differences in reading achievement between an experimental group of students taking English under the supervision of National Teacher Corps Interns with an added emphasis of reading and a control group of students taking English under the supervision of regular contract teachers without an added emphasis of reading. A secondary purpose was to determine experimental subjects' attitudes toward reading.

The study consisted of three parts. Initially, the development and implementation of a Teacher Corps program was delineated. Secondly, students' reactions to a survey questionnaire was administered to the experimental group.

The third phase of the study consisted of the examination of 209 males and females in the 9B and 9A English classes under pre-test and post-test conditions using the Stanford Achievement Tests--Intermediate II Reading as an instrument for assessing student performances.

Student Survey Questionnaire:

The 117 male and female experimental subjects indicated favorable responses to the 20-item survey questionnaire. Their attitudes appeared positive towards having reading techniques and reading remediation taught along with regular English course content.

Reading Achievement:

The 148 experimental and 61 control subjects under pre- and post-test conditions were examined using the Stanford Achievement Reading Test as an assessing instrument. The results of the word meaning and paragraph meaning parts of the Stanford Test were recorded for each experimental and control subject and their differences noted between the two groups.

The analysis of covariance methods were used to determine if there were any significant differences between experimental and control groups.

The F ratio for word meaning was not significant. The experimental group reading performances did not show a significantly greater increase than those of the control. The writer recommends further study.

The F ratio for paragraph meaning was highly significant at the .01 level. The analysis of covariance results for paragraph meaning indicated an F ratio of 52.4867. The derived F .99(1,206) equals 6.63 for significant differences.

The writer suggests educators and educational institutions address themselves to giving high priorities to the decaying levels of reading achievement among inner city students.

All teachers of academic subjects should become reading teachers first within secondary schools and especially within the junior high school or middle grades.

Junior high schools or middle schools should include in curriculums basic reading and remediation courses.

Interdepartmental and Others

83. Blasi, John Frank. *The Implementation and Evaluation of a Higher Education Preparation Program for Culturally Disadvantaged High School Students*. Syracuse University, 1967. 342p. Adviser: Edwin D. Smith. 68-5502.

This dissertation consists of the implementation and evaluation of a Higher Education Preparation Program to ascertain whether total life enrichment experiences during seven weeks, with a follow-up throughout the regular school year, can effectively motivate and educate culturally disadvantaged high school students to develop their talents and make better use of their native abilities. An analysis of the academic achievement of these students has pointed out significant areas of weakness--English, Mathematics, and Reading--that form the core around which the total Program revolves.

The hypotheses tested covered areas such as academic improvement, reading rate and comprehension, study habits, effects of social adjustment on academic improvement, effects of the music program, effect on personal problems, and effects on tested I.Q.

The population consisted of 100 students from culturally deprived backgrounds whose achievement, as evidenced by school grades and teachers' evaluations, was considerably below their tested potential.

The first procedure was to administer a series of tests at the beginning of the Program and a re-test at the conclusion of the Program. The purpose of the test, re-test was to demonstrate improvement in academic achievement.

The second procedure was to have teachers and counselors rate students on perceived social adjustment, using the social adjustment scale devised by the writer. The student population was divided into three groups, Group 1 being the least socially adjusted, Group II better socially adjusted, and Group III the most socially adjusted. The next step was to compare test score improvement with the students' perceived social adjustment. This was accomplished by doing an analysis of variance of the three groups on each of the tests administered. Also, a *t* test was used in comparing the pre- and post-test means on each of the tests, re-tests.

The third procedure was to study the results of the music program developed especially for HEPP.

The fourth procedure was to study the test, re-test results of the Mooney Problem Check Lists before and at the end of the Program to discover any change in the number and type of problems checked.

The post-test results pointed out significant improvement in several areas, including academic achievement, personal development, and the ability to work well with others in a group. It is noted that on 11 of the 14 test, sub-tests administered on a pre- and post-test basis, there was significant improvement for the total group. This paralled the teachers' evaluations regarding over-all improvement of the students.

A study of the results also reveals that students who had better perceived social adjustment improved significantly as a result of the Program. At the same time, the Program was not as effective for the students whose perceived social adjustment was lower. For example, there was significant improvement on only four and five sub-tests respectively for Group I and Group II.

In regard to reading rate and comprehension, there was significant improvement for the total student population, and study habits also improved significantly for the group as a whole.

The music program proved to be beneficial for 42 of the 46 participants, thereby affording them the opportunity to develop an appreciation of music, and also, to develop a talent of playing a musical instrument.

The Mooney Problem Check Lists administered at the close of the Program indicated a significant reduction in the number of problem areas for boys and girls participating in the Program.

As a whole, the Program proved to be quite beneficial in motivating and educating culturally disadvantaged students to develop their talents and make better use of their native abilities.

84. Davis, John William. A Study of Cognitive Development of Southern Culturally Disadvantaged Negro Children. University of Southern Mississippi, 1969. 114p. 70-9740.

The purpose of this study was to determine if the cognitive development of culturally disadvantaged second grade Negro children could be increased significantly through the use of laboratory experiences presented in The New York Cognitive Development Materials.

These materials were designed to provide the experience needed to stimulate cognitive growth of children. The purpose of the materials was to identify the intellectual skills and concepts which characterize logical thinking and to trace the development of these skills and concepts through the stage of pre-logical thinking.

The 120 children of this study came from a common disadvantaged background and attended target school under Title I of the Elementary and Secondary Education Act of 1965. These children were divided into two groups of sixty each. Thirty children from Marion Central Elementary School, Columbia, Mississippi, and thirty children from Calvin Donaldson Elementary School, Chattanooga, Tennessee, comprised Group I. Thirty children from Marion Central Elementary School, Columbia, Mississippi, and thirty children from Frank Trotter Elementary School, Chattanooga, Tennessee, comprised Group II.

Group I was presented the laboratory experiences provided in The New York Cognitive Development Materials. Group II did not receive these laboratory experiences. Both groups were given a pretest and posttest of the New York Test of Cognitive Development. This test was utilized to measure cognitive growth. The California Short Form Test of Mental Maturity was administered to the children to provide a basis for categorizing the scores of The New York Test of Cognitive Development into mental maturity levels of high, middle, and low.

The data were statistically treated to determine the influence of The New York Cognitive Development Materials upon cognitive growth of the children of Group I. Two-way analysis of variance was the statistical method employed to measure this difference.

Hypothesis I.

There is a significant difference in the cognitive development of culturally disadvantaged Negro children who receive The New York Cognitive Development Materials when compared with culturally disadvantaged children who do not receive supplementary cognitive development materials.

Hypothesis II.

When culturally disadvantaged children are divided according to mental maturity levels there is a significant difference in cognitive development of the children who receive The New York Cognitive Development Materials when compared with a similar group who do not receive supplementary cognitive development materials.

Prior to the presentation of The New York Cognitive Development Materials, no significant difference in cognitive development was found between: (1) Group I and Group II, (2) Rural and Urban children, (3) Mental maturity levels of both groups.

Analysis of variance results revealed a significant increase in cognitive development scores of Group I. Thus, Hypothesis I as stated was accepted.

The examination of mean difference scores when placed into high, middle, and low mental maturity levels indicated no significant difference. Upon further investigation of interaction between the groups, a significance was found in the middle and low level children of Group I. Therefore, on the basis of this interaction, Hypothesis II as stated was accepted.

On the basis of the data analyzed in this study, the following recommendations are offered:

1. It is recommended that disadvantaged children of middle and low mental maturity levels be presented an enrichment program in thenature of The New York Cognitive Development Materials.
2. It is suggested that studies of an exploratory and descriptive nature be conducted until understanding of deprived groups are clearly understood.
3. There is a need to determine if the cognitive growth gained from enrichment programs is retained and applied as a thought process over a long period of time.
4. It is recommended that a longitudinal study be conducted to determine if prolonged use of cognitive development materials would increase cognitive growth.
5. A larger population from a widely dispersed geographic area might enhance the understanding of cognitive development of culturally disadvantaged children.

85. O'Bryant, David Claude. Evaluation of a Two-Week Summer Orientation Program in Engineering for Inner-City Black High School Students. University of Illinois at Urbana-Champaign, 1970. 203p. 71-14,893.

This study concerned the evaluation of an experimental program. The participants in the experimental program were eighteen black high school students who had completed their junior year and had expressed an interest in engineering. The participants attended a two-week orientation program held at the University of Illinois at Urbana-Champaign during the summer of 1969. They were exposed to the various fields of engineering through lectures, laboratory sessions, demonstrations, and discussions. The participants resided in university dormitories, attended classes from eight to ten hours per day and became acquainted with college life.

Interviews, questionnaires, and paper-and-pencil tests were used in the evaluation. A mathematics test was given near the end of the program; the results of the test were compared with those in the control group who were participants in a similar, but essentially white, program. Similarly, personality and I.Q. tests were given to both groups.

The application form for the program and five separately administered questionnaires were utilized to determine how successful various people felt that the program had been.

Participants were sent a questionnaire two weeks after their departure from campus and were interviewed seven months following the program. High school educators were interviewed while the investigator was visiting the high schools. The parents of the participants were a sent a questionnaire eight months following the program. The University of Illinois staff members who taught in the program were interviewed during the spring semester following the program.

All groups concerned with the program felt that it was a success. One-fourth of the participants, upon returning to high school in the fall following the program, changed their program in a more engineering oriented direction. Eighty-three percent of the applicants applied for admittance into universities for the study of engineering and sixty-seve! percent were accepted at the time of the completion of this study. There were not significant differences between the experimental and control groups on various personality factors with the exception of intelligence. Following the program, forty-four percent of the participants change the type of engineering they intended to study from what they had stated prior to the program. Two who were undecided prior to the program decided on engineering.

All of the participants indicated that they thought the program was highly successful as shown by their answers to a number of different questions.

Since science and mathematics are considered central to success in engineering, it was heartening that a larger number of participants took mathematics and physics or chemistry during their senior year than did during their junior year.

The program helped the participants to gain confidence in their own abilities, to determine career goals, and to choose a field of engineering. The participants discussed the program with many different groups of people and favorably influenced a number of their peers into considering engineering as a future career choice.

A program of the kind that was offered can alter career goals, instill confidence, and change motivations for inner-city students. It can also cause them to change their senior year program toward a more engineering oriented direction. It can increase high school educators' awareness of engineering as a field of practice and as a field of study, and of the proper high school courses requisite for the successful completion of an engineering education. It can help to make parents and fellow students better aware of engineering, as these two groups are most influential on young people's career choices. A program of this type will have an effect upon all people and institutions with which it and its participant come in contact.

86. Oliveira, Arnulfo Luis. A Comparison of the Verbal Teaching Behaviors of Junior High School Mexican American and Anglo American Teachers of Social Studies and Mathematics with Classes of Predominantly Spanish-Speaking Children. The University of Texas at Austin, 1970. 117p. Adviser: Professor O. L. Davis, Jr. 71-168.

This study sought to determine if any differences existed in the verbal teaching behaviors of Mexican American and Anglo American teachers of eighth grade mathematics and social studies with classes of predominantly Spanish-Speaking children.

Forty secondary teachers constituted the subjects in this study. There were ten teachers in each of four groups: Mexican American teachers of mathematics, Mexican American teachers of social studies, Anglo American teachers of mathematics, and Anglo American teachers of social studies. The teachers were observed four times during a twelve week period. Each observation was twenty minutes long. The verbal teaching behaviors were recorded by using the Observation Schedule and Record 5V (OScAR5V) developed by Medley, et. al., 1968. The data obtained was subjected to analysis of variance procedures. In addition, the use of the Spanish language in the classroom by both teachers and students was observed.

Major findings are summarized as follows:

1. Pupil response statements occurred more in classes with Mexican American teachers than Anglo American teachers. ($p < .05$).

2. Mexican American teachers asked more divergent questions than did Anglo American teachers. ($p < .5$).

3. Anglo American teachers used more informing statements than did Mexican Ameri- teachers. ($p < .10$).

4. Pupils used more non-substantive statements in mathematics classes than they did in social studies classes. ($p < .10$).

5. Pupils asked more substantive questions in mathematics classes than they did in social studies classes. ($p < .01$).

6. Mathematics teachers asked more convergent questions than did social studies teachers. ($p < .05$).

7. Mathematics teachers asked more elaborating 1 questions than did social studies teachers. ($p < .10$).

8. Social studies teachers asked more divergent questions than did mathematics teachers. ($p < .01$).

9. Mathematics teachers failed to evaluate student responses more often than did social studies teachers. ($p < .10$).

10. Mathematics teachers asked more procedural-positive questions than did social studies teachers. ($p < .01$).

Other findings related to combined categories of the OScAR 5V dimensions are also presented as well as findings pertaining to the interactions between the verbal behaviors of teachers due to ethnic background or teaching field.

Observed statements in Spanish by both Mexican American teachers and students were practically non-existent. These findings are also presented.

All findings in this study were discussed in general and specific terms. Suggestions for teacher education programs and for further research were also presented.

87. Sapp, Gary Lee. The Application of a Contingency Contracting System to the Classroom Behavior of Negro Adolescents. The University of Tennessee, 1970. 98p. Adviser: Dr. Robert L. Williams. 71-7675.

The present research was designed to examine the effects of a Contingency Contracting system on the classroom behavior of high school students. Primary questions to be answered were: (1) would the implementation of Contingency Contracting in conjunction with other reinforcement principles be an effective system of behavioral management; and (2) would differences in rates of designated behaviors be observed under the Proclamation and Contracting phases.

Eight subjects were randomly selected from a Junior English class of a predominantly Negro (98 percent), inner-city high school in Knoxville, Tennessee; however, complete data were gathered on four students. Selection of the class as an experimental group was made from a group of five classes whose teachers had requested consultation regarding behavioral problems in the classroom from the experimenter's major professor.

A student in the Senior class was recruited as a teacher aide. His responsibilities included distributing and collecting materials, maintaining records, and assisting individual students.

Seven graduate students, trained in behavioral observation techniques, daily observed the classroom behavior of the subjects. The behaviors were rated in thirteen categories that had been derived by: (1) classroom observation by the experimenter; (2) administration of a Student Survey Sheet to the class; and (3) conferences with the teacher.

Satisfactory observer reliabilities (80 percent agreement) were achieved under training before class observation began. Thereafter, reliabilities were computed weekly for all the observers.

The research was comprised of four phases:

1. Baseline (a) Formulation of Behavior Categories
   (b) Behavioral Observation without treatment implementation
   (c) Implementation of the Point System, Programmed Instruction, and Teacher Reinforcement (Proclamation)
2. Treatment Contingency Contracting
3. Reversal (a) Contract Reversal
   (b) Reversal of Point System
4. Reintroduction of Contract

An intra-subject replication design was used to demonstrate the functional relationship between the behavior change and its controlling variables. Data presentation employed discrete line graphs which illustrated the inverse relationship of appropriate to inappropriate behaviors as a function of the experimental phases. Data examination showed that: (1) sizes of changes in behavior occurred rapidly and consistently across all subjects; (2) appropriate behavior was instituted, maintained in strength, reversed and reinstituted to approximately the same level as that under treatment; (3) most of the members of the experimental class earned higher grades under Contracting than during the previous six weeks; (4) behavior can be maintained in strength equally well under both the Proclamation and Contracting phases; and (5) Contracting was an effective system of behavioral management.

88. Wise, Stephen Richard. A Study in Three Alabama Counties to Determine the Relationship Between Migrant and Non-Mobile Rural Disadvantaged Students in Selected Curriculum Areas as Measured by a Standardized Testing Instrument. University of Alabama, 1970. 241 p. 71-9154.

The purpose of this study was to determine the relationship, if any, that exists between the areas of reading comprehension, vocabulary, spelling, capitalization, punctuation, word usage, knowledge of reference materials, map reading, graphs and tables, arithmetic concepts, and arithmetic problem-solving of non-mobile rural disadvantaged students and mobile children of seasonal agricultural workers in the following Alabama county school systems: Blount, Cullman, and Pike.

To accomplish this purpose the assumption was made that no statistically significant difference in the curricular needs exists between non-mobile rural disadvantaged children and migrant children as measured by the eleven tests of the Iowa Tests of Basic Skills.

All migrant children that were identified in grades three through nine in the participating school systems were tested. Non-mobile rural disadvantaged children were randomly selected from the children that were eligible for and participating in the Elementary and Secondary Education Title I Enrichment Programs for the disadvantaged in grades three through nine.

When analyzing the data, grades three through sex were considered as one group and grades seven through nine as the other group. In addition, the county school systems of Blount, Cullman, and Pike were considered as separate entities. The students in the study were compared as white migrant versus white non-mobile rural disadvantaged in the two grade groups of three through six and seven through nine. In the Pike county school system, however, a comparison was made between black migrant and black non-mobile rural disadvantaged students in the two grade groups. In addition, black migrant students were compared to white migrant students and the black non-mobile rural disadvantaged students were compared to the white non-mobile rural disadvantaged students.

Cattell's pattern similarity index was used in the eighteen comparisons to analyze the data obtained from the eleven tests. The data revealed two significant dissimilarities at the .01 level between the Pike county black and white migrant students and Pike county black and white non-mobile rural disadvantaged students; white students did significantly better in each case. There were two additional significant dissimilarities at the .01 level. One significant dissimilarity was found between white migrant students and white non-mobile rural disadvantaged students and the other significant dissimilarity was found between fifth grade non-mobile rural disadvantaged; migrant students did significantly better in each case. Significant similarity was found in two cases; Pike county white migrant students versus Pike county white non-mobile rural disadvantaged and ninth grade migrant students versus ninth grade non-mobile rural disadvantaged students. In the twelve remaining groups no relationship existed.

In twelve of the sixteen groups that migrant students were compared against the non-mobile rural disadvantaged students, the migrant students obtained higher test results in the majority of the tests. In four out of the twelve compared cases, the migrant students scored higher in all eleven tests than did the non-mobile rural disadvantaged students. In only one group did the non-mobile rural disadvantaged students score higher in all eleven tests than the migrant students.

Assuming the validity of the findings, no evidence exists that logically and rationally supports the present operational procedures related to educational programs for migrant students and non-mobile rural disadvantaged students--that the two programs should be separate and distinct entities.

Based on insights gained through this study, the following recommendations for further research are presented:

1. A follow-up study should be conducted to evaluate a year's growth in a remedial Title I program that contains migrant and non-mobile rural disadvantaged students.

2. A study to compare black and white urban advantaged students with black and white migrant students should be conducted.

3. Comparisons of test results between migrant students and national norms or even southeastern norms should be attempted.

89. Fitzgerald, Doris B. Occupational Motivation of the Academically Disadvantaged High School Student. New York University, 1971. 126p. Adviser: Karen [illegible]. 72-11,454.

The purpose of this study was to determine the effect of occupational motivation on the academically disadvantaged high school student as it related to his academic achievement and employability.

The subordinate problems inherent to the main problem were:

1. To determine whether an 8th term student in high school enrolled in the General Curriculum could be motivated to higher academic achievement if employment was guaranteed when a passing grade was attained in a special Business Training class.

2. To determine whether an 8th term General Curriculum student's employability

could be ascertained from employers' aptitude tests.

3. To determine whether specific occupationsl motivation significantly affected the drop-out rate as compared to similarly classified students.

4. To determine whether the occupationally motivated General Curriculum student would do significantly better in English and Social Studies than a similarly classified student not so motivated.

This study extended over a period of two years and included fifteen students each in the control and experimental groups during the first year and twenty-three students each in thos respective groups during the second year plus an additional twenty-three in a company selected group. The students in the experimental group were guaranteed jobs with a cooperating company, while the control groups were not guaranteed any jobs.

The Business Training course was designed to orient the students to job skills for beginning clerical employees in the cooperating company that had provided jobs for all students in the experimental groups, none of whom would have been employed on a basis of aptitude test results.

The basic hypotheses and findings were as follows:

1. Guaranteeing a specific part-time job upon attainment of a stated level of achievement in a job-oriented program and guaranteeing full-time employment upon graduation would motivate the General Curriculum student to higher academic achievement was supported statistically for the Business Training course.

The findings of this study indicated that this specially designed course was more relevant to the students in the experimental group who had been guaranteed a job than to those in the control group who had not been guaranteed a job.

2. Employees selected by employers' aptitude tests are superior in on-the-job performance to employees who would have been rejected by the employers' aptitude tests, but who successfully complete the program of this study, was not supported.

In every rating of the performance qualities tested by the company, and on the basis of numerical values assigned these ratings, the experimental groups exceeded or equaled the company's employed group (chosen on the basis of an aptitude test) in total points.

3. Eighth term General Curriculum students who are guaranteed employment after graduation would have a lower drop-out rate than other General Curriculum students not so motivated.

Although, statiscally the drop-out rates did not differ significantly between the experimental and control groups, there were no drop-outs in the experimental groups in either year compared to two drop-outs in the control group each year of the study.

4. Occupationally motivated students would do better in English and Social Studies than similarly classified students not so motivated. English and Social Studies grades seemed to be the least affected by the variable introduced to the experimental group.

90. Herrick, Michael Joseph. The Development of a Theoretical Model of Discovery Sequence and Its Implications for an English Curriculum for the Disadvantaged. The University of Texas at Austin, 1971. 213p. Adviser: Dr. Geneva Hanna Pilgrim. 72-15,774.

The purpose of this study is to describe particular learning problems that cause the poor academic performance of certain disadvantaged students and to develop a specific teaching method to meet their needs.

After an introductory analysis of future educational requirements and of the failures of the schools today, the student is defined as academically disadvantaged because he is not able or willing to learn in the manner expected by the school and, consequently, is primarily performing below grade level in English, reading, and mathematics and secondarily suffering from the problems of lower socio-economic status. The factors for his lessened academic achievement are found to be his lack of control over his academic environment and his negative self-concept. To motivate the academically disadvantaged student and to counteract these factors, the "learning by discovery" approach is considered.

In order to clarify what discovery is in terms of the curriculum components of purpose, person, process, and product, an extensive review is presented, covering the disciplines of logic, psychology, and education as they concern themselves with the theory of discovery. From the research emerges a general pattern of discovery which is documented and developed in relation to the disadvantaged student's performance in the classroom. After a review of discovery approaches in English, application is made to specific teaching-learning units in English with the major example, teaching the mode of narration.

The general pattern is delineated as a *discovery sequence*: the range of related, classroom learning activities in which the student wants to acquire knowledge new to himself. The teacher sets up a *framework* which will guide the learning unit. Then, by an *inductive entry*, the student is lead into the lesson through guided interaction with the samples or items, related to his experience, that make up the subject matter until he forms some *impression* about what it is he wants to learn. Then he proceeds to the *investigation* of his interest in a number of ways until he is satisfied that he can clearly express what it is that he has learned for himself and make an explanation of it to the teacher and other students for an *evaluation* of its significance.

The appropriateness of using the discovery sequence for the academically disadvantaged student in an English classroom is explained in conclusion to the study. The chief advantage of the discovery sequence is found to be its effectiveness for meeting certain learning needs of the disadvantaged student, and, in so doing, initially motivating this student to be receptive to the new learning unit because the discovery sequence enables the student to achieve some control over his academic environment and to improve his negative self-concept.

91. Norton, William Arnold. *A Study to Determine the Effects of Loudness and Type of Music on Figural and Verbal Creative, Reading Coding, and Arithmetic Computation Tasks*. University of Georgia, 1971. 107p. Adviser: Dr. E. Paul Torrance. 72-11,020.

This study was conducted to determine whether specific volume level or specific types of music facilitate the processes of figural and verbal creativity, reading, coding, and arithmetic computation, and to determine whether the sex or race of the subjects affect task performance under controlled conditions.

Five treatment groups were established: (1) soft popular music (51 - 70 decibels); (2) loud popular music (71 - 90 decibels); (3) soft classical music (51 - 70 decibels); (4) loud classical music (71 - 9- decibels); and (5) control.

The music was taped on recorders and presented to the subjects at the prescribed decibel range. The subjects used in this study were 400 sixth grade students from a rural area.

The treatment was divided into a morning session and an afternoon session. While being subjected to the morning treatment, the subjects completed the following: (1) Feeling Tone Checklist; (2) Thinking Creatively with Words; (3) Reading to Retain Information; (4) Coding; and (5) Feeling Tone Checklist. During the afternoon session they completed the following: (1) Feeling Tone Checklist; (2) Thinking Creatively with Figures; (3) Arithmetic Computations; (4) Feeling Tone Checklist; and (5) Information Sheet.

A multivariate analysis of variance was used to determine areas of significance on the creativity, reading, coding, and arithmetic computation factors. The fatigue factors were weighted and means established.

The results revealed that on all the verbal and figural creativity factors and academic oriented tasks, the white subjects scored higher than the black subjects. The black males and females performed best on verbal fluency and verbal originality tasks when the musical treatment was high classical music. The white subjects performed best on verbal fluency and verbal originality tasks when the musical treatment was high popular music. On verbal flexibility the black subjects did best when the musical treatment was low. On verbal fluency and verbal flexibility tasks the females tended to score higher than the males.

For figural fluency tasks the black subjects did best when the musical treatment was low and classical music, while the white subjects performed best when the musical treatment was high and popular music. On figural flexibility tasks the black subjects performed best when subjected to low and popular music and the white subjects did best under the treatment of high and classical music. On figural originality tasks the white male, white female, and black male subjects performed best subjected to high music. On figural elaboration the white male and black female subjects did best when listening to low music and the black male and white female subjects to high music. On creativity tasks, the subjects performed better with the musical treatment than did the control group.

On the academic oriented tasks the subjects tended to do better on these tests when subjected to low popular and classical music respectfully.

The black students seem to be more fatigued in the early morning than the white students; whereas the white student comes in, expends more energy and by midmorning is more fatigued than the black students. Females seemed to expend more energy during the school day than males.

92. Grant, Carl A. An Empirical Study of the Effects of Relevant Curriculum Materials upon the Self-Concept, Achievement and Attendance of Black Inner-City Students. The University of Wisconsin, 1972. 95p. 72-15,353.

Research into the area of self-concept has shown that one's self-concept can be affected by, (1) one's academic performance, (2) curriculum materials, (3) and that these two factors can affect one's school attendance. The purpose of this study was to examine the effect of relevant curriculum materials upon the self-concept, achievement and school attendance of black students.

The subjects for the study were black students enrolled in ten randomly selected inner-city schools in a large urban school system. Thirty-nine heterogeneously grouped classrooms were involved in the study--sixteen third grades and twenty-three sixth grades. Of these, eight third grade classes and eleven sixth grade classes were in the experimental group while eight third grade classes and twelve sixth grade classes were in the control group.

A control group design was established. The data collected from each test were analized separately by three way analysis of variance for fixed effects using group means as a basis of analysis. The alpha level chosen for significance was .05.

To measure the effects of relevant materials upon the self-concept, achievement and school attendance three instruments were utilized, "The How I Feel About Myself" Inventory, "The Metropolitan Reading Test," and "The attendance Form." The subjects of the experimental groups used the treatment material (SRA "We Are Black" Laboratory) for at least forty-five minutes a day for a period of four months.

There were no statistically significant differences in the self-concept of students in the experimental group as compared with students in the control group as measured by the Metropolitan Reading Test. Also, the students in the experimental classes using the relevant materials had better school attendance than did the students in the control classes.

There appears to be agreement between the data collected in this study and the findings of other studies investigating similar or related topics concerning relevant material and school achievement and attendance. The results support the findings of other studies that relevant material can positively effect a student's achievement and school attendance. The findings of this study that relevant materials have no greater effect on the self-concept of the group using them does not necessarily support the conclusion of other studies investigating similar or related topics.

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